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CH ACC. NO.	P.A.	PUBL. DATE	ISSUE
VT 009 154		65	RIEJAN70

AUTHOR

TITLE
Teaching in Associate Degree Nursing Programs. Final Report (June 20-July 2,1965).

SOURCE CODE	INSTITUTION (SOURCE)
HWP26720	Florida Univ., Gainesville. Coll. of Nursing

SP. AG. CODE	SPONSORING AGENCY
BBB00430	Kellogg (W.K.) Foundation, Battle Creek, Mich.

EDRS PRICE	CONTRACT NO.	GRANT NO.
0.50;5.05		

REPORT NO.

BUREAU NO.

AVAILABILITY College of Nursing, University of Florida, Gainesville, Florida 32601 (no charge)

JOURNAL CITATION

DESCRIPTIVE NOTE
99p.

DESCRIPTORS *Health Occupations Education; *Nursing; *Technical Education; Clinical Experience; Staff Utilization; Associate Degrees; Community Colleges; Junior Colleges; Student Evaluation; Curriculum Development; *Teacher Workshops; Summer Workshops

IDENTIFIERS
*Florida University

ABSTRACT

More than 50 professional nurses participated in the summer workshop to prepare teachers for associate degree nursing programs. The general structure of the workshop provided for general sessions in the morning for all participants and small afternoon group sessions organized on the basis of curricular area--fundamentals of nursing, nursing in mental and physical illness, and mater and infant care. General session presentations are: (1) "Social Forces Affecting High Education Opportunities" by Robert Wiegman, (2) "Associate Degree Nursing Programs: Philosophy, Purpose, and Curriculum," "Testing and Evaluation," and "Some Newer Approaches to Teaching" by Joan O'Brien, (3) "Developing a Statement Philosophy and Purpose," "Curriculum Design in Associate Degree Nursing Programs, "Factors Which Influence Selection of Content and Learning Experiences," "Selection and Use of Community Resources," and "Continued Curriculum Developmen by Harriet De Chow, (4) "Pre and Post Conferences" by Barbara Warren, and (5) "Assignment Patterns" by Nellie Wilson. (JK)

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TEACHING
IN ASSOCIATE
DEGREE NURSING PROGRAMS

College of Nursing
J. Hillis Miller Health Center
University of Florida
Gainesville, Florida

Final Report to the W. K. Kellogg Foundation

June 20 - July 2, 1965

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BACKGROUND AND OVERVIEW OF WORKSHOP

In 1960 the W. K. Kellogg Foundation appropriated funds to finance a graduate program at the University of Florida which was designed for the purpose of preparing faculty members to teach in associate degree nursing programs. The program was a part of a state-wide project for the improvement of nursing education and nursing services with special emphasis being placed on the junior college nursing program. This statewide project was, in turn, part of a four state W. K. Kellogg project for improvement of nursing education and nursing services.

The College of Nursing, University of Florida, offers a program of graduate study leading to a Master of Nursing degree. The program offers preparation for teaching or administration in associate degree nursing programs as an area of functional preparation. One area of focus in the curricular development of this program has been the delineation of educational experiences specific to preparation for teaching or administration in associate degree nursing programs.

This initial commitment to the associate degree nursing concept and involvement in the preparation of associate degree nursing faculty has led the University of Florida to a continuing commitment in this area. One outgrowth of the original project has been increased recognition of the need to find various effective ways of meeting marked national demands for faculty prepared to function in the junior college setting. This workshop was one approach toward amelioration of this problem.

According to the report of the Surgeon General's Consultant Group on Nursing, to meet the nation's need for professional nursing services, there will have to be 850,000 trained professional nurses by 1970.

To provide adequate service in general hospitals in 1970 will require, in total, some 525,000 professional nurses, instead of the 340,000 we have today.

In the field of psychiatric nursing there are today 16,300 professional nurses and the number should be at least doubled by 1970.

Nursing homes supply a substantial proportion of services for patients with long term illnesses. There are some 9,700 "skilled nursing care" homes in the United States, with about 350,000 patients, but one out of ten of these institutions has no full-time professional or practical nurses. Another 13,000 facilities offer "personal care" or "residential care" but of these only one in eight has any nursing staff. It is estimated that by 1970 there will be 40,000 nursing homes giving "skilled nursing care", requiring a minimum of 40,000 professional nurses.

Graduates of associate degree nursing programs are prepared to function effectively in all these areas. The development of associate degree nursing programs is the most rapidly expanding segment of the nursing education structure. Thus, it is reasonable to assume that if these nursing needs are met they will be met, in large part, by graduates of associate degree nursing programs.

A critical shortage exists in the field of nursing education. In 1962, 19,500 nurses were employed in schools which prepare professional and practical nurses. In that year, there were 1,200 faculty vacancies in the professional schools and 225 in the practical nursing programs. By 1970, to provide for adequate staffing for existing schools of nursing will require more than 30,000 nurse educators. It has been mentioned that the most rapidly expanding segment of the nursing education structure is the associate degree programs. Thus it is clear that the need for qualified faculty is perhaps even more critical in associate degree programs than in either baccalaureate or diploma programs. For example, in the state of Florida there was no associate degree program in nursing in 1956. One associate degree program in nursing was being offered in 1957. There are currently (1965) eleven associate degree nursing programs in the state with three in the planning stage. In the Southern Regional Education Board area, covering 16 states, there are 38 associate degree programs with 13 programs in development which will admit students in September 1965.

In 1963, in the Southern region alone, over 15 per cent of full-time budgeted positions for nursing faculty in associate degree nursing programs were vacant. The percentage is considerably higher now because the growth of associate degree programs has become even more accelerated in the last few years.

The two factors we have identified -- (1) the anticipated increase in enrollment in on-going associate degree programs, and (2) the rapid expansion in development of new associate degree nursing programs -- provide substantial evidence of need for immediate as well as long-range measures to meet the need for qualified nursing faculty for these programs.

Teaching in associate degree nursing programs requires specific orientation of the overall junior college philosophy, orientation and functions. In addition, associate degree nursing programs per se represent a rather marked departure from the more traditional curriculum organizing constructs and educational patterns of baccalaureate and diploma programs. Therefore, specific orientation and preparation for teaching in these programs has come to be recognized as an educational imperative. More succinctly, teaching in baccalaureate or diploma programs is quite different than teaching in associate degree nursing programs. And in order to be a really effective teacher in this setting the prospective faculty member needs specific orientation and preparation.

The University of Florida has become fairly well identified nationally as an institution committed to the preparation of faculty for associate degree nursing programs. This is a natural outgrowth of our five year project in this area which was underwritten by the W. K. Kellogg Foundation.

At the November 1964 meeting of the Kellogg group at Battle Creek, Dr. Thomas Merson, Director for Commissions of the American Association of Junior Colleges, indicated his grave concern over the lack of qualified nursing faculty for associate degree programs. After considerable discussion we agreed to explore the possibility of offering a summer workshop at the University of Florida to prepare teachers for associate degree nursing programs, and to explore other ways to offer preparation to junior college nursing faculty. Preliminary discussion was held at that time with Miss Mildred Tuttle, Director, Division of Nursing, W. K. Kellogg Foundation, in regard to the possibility of offering a summer workshop at the University of Florida for the preparation of teachers for associate degree nursing programs. The workshop would be similar in nature to the one held at Purdue University the previous summer.

As a result of these preliminary discussions, an initial planning meeting was held in Jacksonville, Florida on December 4, 1964. Members of this advisory planning committee were: Miss Mildred Tuttle, Miss Helen Belcher, Miss Mary McCandless, Miss Harriet DeChow, Miss Marion McKenna and Dr. Joan O'Brien.

There was general agreement on the need for a short-term (two week) institute or workshop for the preparation of faculty for associate degree nursing programs.

Miss Belcher indicated that the Southern Regional Education Board was very interested in this area and quite cognizant of the need for such a workshop.

It was proposed that the workshop be co-sponsored by the Southern Regional Education Board and the W. K. Kellogg Foundation and hosted by the University of Florida, College of Nursing. The selection of the University ofFlorida as the setting for the workshop was related to the University of Florida's recognized commitment to preparing faculty in this area.

The purpose of the workshop was identified as preparing faculty for associate degree nursing programs. The focus was to be on the operational - "how to do it" - level. The primary objective was to provide an overall orientation to junior college philosophy and role as well as specific orientation to associate degree nursing programs. It was anticipated that this approach would enable prospective faculty to move into a junior college setting and perform effectively.

The first planning meeting of the workshop faculty was held January 22 and 23 at the University of Florida, College of Nursing. Dr. Sophia Yaczola, Columbia University, participated as a consultant to the faculty group.

The general plan of the workshop was developed as well as identification of areas of individual responsibility. The use of Dr. Yaczola as a consultant proved particularly helpful in expediting the planning session.

The second faculty planning meeting was held at the University of Florida on May 14 and 15, 1965. It was during this meeting that final plans for the workshop were formulated.

The workshop began on Sunday, June 20, 1965, at 7:30 p.m. with an informal social hour hosted by the Southern Regional Education Board. Faculty and guests were introduced, workshop participants were given instructions concerning the first meeting, and instructional materials and the workshop program were distributed. The workshop proper began Monday morning in the J. Hillis Miller Health Center. Miss Lois Knowles, Assistant Dean of the College of Nursing, welcomed the workshop participants and highlighted some of the major issues facing nursing education.

The workshop participants were divided into four groups reflecting their curricular area. There were two groups in Fundamentals of Nursing and one group each in Nursing in Mental and Physical Illness and Maternal and Infant Care.

The general structure of the workshop was to have general sessions in the morning for all the participants and to have small group sessions during the afternoon to discuss the concepts learned in the general sessions and how they might be applied to their specific curricular area. A recorder was appointed for each group and a summary of the day's work was mimeographed and distributed to each member at the next small group session. This summary assisted in providing continuity in the group discussion by providing a handy reference for ideas and concepts previously developed. The majority of the sessions were held in the motel where the workshop participants resided for the two weeks. The faculty thought that the relaxed atmoshpere of the motel would enhance group interaction and would make the workshop more productive.

Sessions were held on Saturday morning. Afterwards, many took advantage of being in Florida and visited beaches and other scenic attractions.

On the evening of Thursday, July 1, the participants and faculty attended the workshop banquet. Miss Mildred Tuttle, Director, Division of Nursing, W. K. Kellogg Foundation, was the guest of honor. Miss Tuttle spoke to the group concerning the Kellogg Foundation's interest in associate degree nursing programs. She suggested that each person in the workshop be committed to interpret the educational philosophy of the associate degree program in their home situations. The final session of the workshop was held at the J. Hillis Miller Health Center. Evaluation forms were collected and the workshop ended at 1:00 pm on Friday, July 2, 1965.

We are most appreciative of the financial assistance given to us by the W. K. Kellogg Foundation and the Southern Regional Education Board and of the personal interest and support given to us by Miss Mildred Tuttle of the Foundation and Miss Helen Belcher of the Board.

WORKSHOP PROGRAM

Week 1

Sunday, June 20

7:30-9:00 PM

Welcome and Registration.
Distribution of Materials and Workshop Directions.

The Social is Hosted by the Southern Regional Education Board, Atlanta, Georgia.

Monday, June 21

9:00-12:00 PM

General Session
Welcome and Introduction of Visiting Faculty and Guests.
    Miss Lois Knowles, Assistant Dean, College of Nursing.

Overview of Workshop.
    Dr. Joan M. O'Brien.

The Junior College Movement-Role in Higher Education and Philosophy.
    Dr. Robert Wiegman, Professor, College of Education.

1:30-4:00 PM

General Session

Associate Degree Nursing Programs: Overall Philosophy, Purpose and Curriculum.
    Dr. Joan M. O'Brien.

"Idea With A Future"

Developing a Statement of Purpose and Philosophy.
    Miss Harriet DeChow.

Tuesday, June 22

9:00-12:00 AM

Small Group Sessions
- Miss Barbara Warren, Fundamentals of Nursing
- Miss Nellie Wilson, Fundamentals of Nursing
- Mrs. Dorothy Stratton, Maternal and Infant Care Nursing
- Miss Eva Smith, Nursing in Physical and Mental Illness

Development of A Statement of Philosophy, Purpose and Objectives.

1:30-4:00 PM	Small Group Sessions
	Development of General Objectives for Each Group.

Wednesday, June 23

9:00-12:00 AM	General Session
	General Curriculum Design. Miss Harriet DeChow.
	Discussion of General Curriculum Design.
1:30-4:00 PM	General Session
	Specific Curricular Design for Nursing. Faculty Panel.
	First and Second Year Curriculum of Manatee Junior College and Daytona Beach Junior College.

Thursday, June 24

9:00-12:00 AM	General Session
	Overview of Courses: Theoretical Framework, Philosophy of Content Area, Major Expectations, Placement, Sequence, and Credit. Faculty Panel.
1:30-4:00 PM	Small Group Sessions
	Development of Philosophy, Objectives and Organization for a Course.

Friday, June 25

9:00-12:00 AM	Small Group Sessions
	Continuation of Development of Philosophy, Objectives, and Organization of a Specific Course.
1:30-4:00 PM	General Session
	Factors Influencing Selection of Content. Miss Harriet DeChow.

Saturday, June 26

9:00-12:00 AM Small Group Sessions

Selection of Content for a Specific Unit.

Week 2

Monday, June 28

9:00-12:00 AM General Session

Factors Which Influence Selection of Learning Experiences.
Miss Harriet DeChow.

Discussion.
Faculty Panel.

1:30-4:00 PM Small Group Sessions

Individual Content Areas

Tuesday, June 29

9:00-12:00 AM Small Group Sessions

Selection of Learning Experiences Related to Specific Content Area.

1:30-4:00 PM General Session

Use of Community Resources.
Miss Harriet DeChow.

Wednesday, June 30

9:00-12:00 AM General Session

Use of the Clinical Laboratory.
Faculty Panel.

Pre and Post Conferences.
Miss Barbara Warren.

Assignment Patterns.
Miss Nellie Wilson.

1:30-4:00 PM Small Group Sessions

Developing a Plan for Clinical Laboratory Experiences.

Thursday, July 1

9:00-12:00 PM General Session

Testing and Evaluation.
Dr. Joan O'Brien.

1:30-4:00 PM Small Group Sessions

Development of Evaluation Tools

Friday, July 2

9:00-1:00 PM General Session

Some Newer Approaches to Teaching
Dr. Joan O'Brien

The Southern Regional Education Board Project
Miss Helen Belcher

Continued Curriculum Development
Miss Harriet DeChow

Evaluation of Workshop

There was a banquet Thursday, July 1, at 7:00 PM in the Gator Room at the University Inn.

WORKSHOP DIRECTORY

Belcher, Helen C., M.N., Director, Nursing Project, Southern Regional Education Boar, Atlanta, Georgia.

DeChow, Georgeen H., M.S.N.E., Workshop Faculty Coordinator, Director, Department of Nursing, Manatee Junior College, Bradenton, Florida

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Stratton, Dorothy C., M.Ed., Instructor, Department of Nursing, Daytona Beach Junior College, Daytona Beach, Florida.

Tuttle, Mildred, D.Sc., Director, Division of Nursing, W. K. Kellogg Foundation, Battle Creek, Michigan.

Warren, Barbara A., M.Litt., Instructor, Department of Nursing, Daytona Beach Junior College, Daytona Beach, Florida.

Wiegman, Robert R., Ed.D., Professor, College of Education, University of Florida, Gainesville, Florida.

Wilson, Neillie L., M.A., Instructor, Department of Nursing, Manatee Junior College, Bradenton, Florida.

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Anderson, Jessie Marie, Instructor, Mississippi Valley State College, Itta Bena, Mississippi

Armstrong, Margaret, Chairman, Division of Nursing, Meridian Junior College, Meridian, Mississippi

Barnett, Arlyne, Graduate Student, College of Nursing, University of Florida, Gainesville, Florida.

Belknap, Evelyn, Director of Nursing Education, Pearl River Junior College, Poplarville, Mississippi

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Bransford, Ruth Elaine, Instructor, Texarkana College, Texarkana, Texas

Buchler, Analie Jane, Graduate Student, College of Nursing, University of Florida, Gainesville, Florida

Cheshire, Nancy C., Instructor, Central Piedmont Community College, Charlotte, North Carolina

Clarke, Gladys C., Instructor, Jones County Junior College, Ellisville, Mississippi

Coury, Victoria Helen, Instructor, Mississippi Delta Junior College, Moorhead, Mississippi

Darner, Alice, Assistant Director and Instructor, Franklin Square Hospital School of Nursing, Baltimore, Maryland

Dohmeir, Elaine Margaret, Instructor, Indian River Junior College, Fort Pierce, Florida

Dumas, Helen V., Instructor, Broward County Junior College, Fort Lauderdale, Florida

Eidson, Beverly Ann, Instructor, Mississippi Delta Junior College, Moorhead, Mississippi

Emmerton, Madge, Instructor, Central Florida Junior College, Ocala, Florida

Gardner, Roxie C., Instructor, Odessa College, Odessa, Texas

Hall, Linda, Instructor, Jones County Junior College, Ellisville, Mississippi

Henrion, Rosemary, Instructor, Perkinston Junior College Center, Pascagoula, Mississippi

Jernigan, Grace, Instructor, Lake City Junior College and Forest Ranger School, Lake City, Florida

Keith, Lillian K., Director, School of Nursing, The Texarkana College, Texarkana, Texas

Kieser, Lila E., Administrator, Program in Nursing, University of Kentucky, Elizabethtown Community College, Elizabethtown, Kentucky

Kindred, Sandra, Graduate Student, College of Nursing, University of Florida, Gainesville, Florida

Kingman, Margaret, Director of Nursing Education, Perkinston College Center, Pascagoula, Mississippi

Langston, Clara J., Instructor, Gulf Coast Junior College, Panama City, Florida.

Laritz, Willie I., Director of Nursing Education, Central Florida Junior College, Ocala, Florida

Meyer, Anne Elizabeth, Curriculum Coordinator, Kettering School of Nursing, Kettering, Ohio

Monroe, Helen L., Chairman of Nursing Education, Mississippi Valley State College, Itta Bena, Mississippi

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Neary, Edna, Instructor, St. Petersburg Junior College, St. Petersburg, Florida

Page, Maxine, Instructor, Southern Missionary College, Collegedale, Tennessee

Poole, Marjorie C., Instructor, Perkinston College Center, Pascagoula, Mississippi

Posey, Flora, Director of Nursing Education, University of Southern Mississippi, Natchez Resident Center, Natchez, Mississippi

Powell, Dorothy G., Director of Nursing Education, Southeastern General Hospital, Lumberton, North Carolina

Price, Virginia, Instructor, Meridian Junior College, Meridian, Mississippi

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Ray, Dolly Sue, Instructor, Mississippi Delta Junior College, Moorhead, Mississippi

Reaves, Daisy Lee, Instructor, Central Florida Junior College, Ocala, Florida

Richardson, Harvalea, Instructor, Odessa College, Odessa, Texas

Sister Mary Helen, Instructor, James R. Dougherty, Jr. School of Nursing, Corpus Christi, Texas

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Stromer, Mary Lou, Director of Nursing Education, Catonsville Community College, Catonsville, Maryland

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Taylor, Dotty Jean, Instructor, The Texarkana College, Texarkana, Texas

Thaxton, Margaret, Instructor, St. Petersburg Junior College, St. Petersburg, Florida

Tucker, Annie Margaret, Nursing Education Consultant, Institutions of Higher Learning, Jackson, Mississippi

Vaughan, Anna May, Associate Chairman, Kettering School of Nursing, Kettering, Ohio

Watson, Del LaVerne, Associate Chairman, Division of Nursing, Southern Missionary College, Collegedale, Tennessee

Wawrzyniak, Valerie, Instructor, Miami-Dade Junior College, Miami, Florida

Willis, Elizabeth G., Instructor, The Texarkana College, Texarkana, Texas

Wilson, Elizabeth P., Instructor, Daytona Beach Junior College, Daytona Beach, Florida

SOCIAL FORCES AFFECTING HIGHER EDUCATION OPPORTUNITIES

As an historian, let me indulge in my hobby and begin with a quick look at history. In the early 1800's higher education was the privilege of the few. Knowledge gained in the classical colleges which were then available was the mark of respectability. The survivor of such a system was not anxious to question the training which gave him status. In fact, the very nature of the training precluded the raising of questions. Eddy, in his book Colleges for Our Land and Time, says that "The term higher education does not describe these early institutions. Most of the students entered in their early teens and were graduated at an age now considered close to minimum for a college freshman." Louis Agassiz characterized the Harvard College of the 1850's as a "respectable high school where they taught the dregs of learning."

The college was designed to preserve and transmit tradition. Professor Becker commented, "Rarely troubled by doubt and always disposed to rely on the recognized authorities, their chief distinction was to know and enforce all the right answers rather than to know or to ask any of the right questions. 'I would rather have ten settled opinions and nine of them wrong', Professor Taylor of Yale was accustomed to saying, 'than to be like my brother Gibbs with none of the ten settled'."

But forces were at work throughout the land which would lead to the establishment of a new type of collegiate educational institution. The free school movement had begun with the conviction that education was an obligation of the state. Educational opportunity was extended to include women. The American Lyceum Movement began and became the forerunner of college extension of today; millions of people throughout the country came together to hear lectures on almost any conceivalbe topic thus laying the groundwork for our extensive programs of adult education today. Industry was developing and with it came demands for trained personnel and technicians. The shorter work week gave the people more leisure time in which to pursue knowledge. Scientific methods were being applied to agriculture, although one hard-shelled Georgia farmer rejected an invitation to attend a plowing demonstration by saying that "he already knew how to plow a helluva lot better than he was doing."

The pressures rising from these forces crowded some of the classical colleges into making at least halting overtures toward meeting the needs, but Jonathan Baldwin Turner insisted that a new type of educational institution was needed as he could not imagine a combination of the new with the old. He dismissed the attempts of the classical colleges at revisions in their curriculums by commenting, "No wonder such educators have ever deemed the liberal culture of the industrial classes an impossibility for they have never tried nor even conceived of any other way of educating them except that by which they are rendered totally unfit for their several callings in after life. How absurd would it seem to set a clergyman to plowing and studying the depredations of blights, insects, the growing of crops, etc. in order to give him habits of thought and mental discipline for the pulpit, yet this is not half as ridiculous in reality as the reverse absurdity of attempting to educate the man of work in unknown tongues, abstract problems, and theory, and metaphysical digments and quibbles."

Out of these and other forces came the land grant colleges founded on the conviction that the educationally underprivileged (which included all classes but the clergy, physicians and lawyers) should be given the opportunity to enjoy the benefits of higher education, that the common man had an inalienable right under our American system to improve his lot and life through expended education.

The land grant colleges developed and contributed numerous ideas and techniques to our educational system: laboratories as teaching tools; extension services; a concern for the real and everyday problems of people which became the basis for much of their research activity; and running under and through it all the conviction that higher education is the right of any person who could profit from it and commitant with this conviction the idea that colleges existed to serve the people. As I see it, many of the same forces which brought the land grant colleges into being are still in operation forcing us to take a new look at our whole structure of higher education.

I hope that we will have ample time for discussing these points and other points when I have finished with this formal presentation.

First, it seems to me that one of the forces focusing attention on the need for a new type of educational institution is the tremendous increase in the number and percentage of young people knocking on the doors of colleges and universities. In 1955 the Fund for the Advancement of Education reported that during the 1930's births each year numbered between 2,000,000 and 3,000,000. In the 1940's the annual rate rose to more than 3,000,000 births; in 1954 more than 4,000,000 births were recorded. They concluded that whether the birth rate increases or levels off, children already born will require a doubling of facilities between 1955 and 1980. Now these data are a little out of date but they serve to illustrate one spectacular point to me and that was that,,in effect, using these figures which the Fund identified, America must build as many college facilities between 1955 and 1980 as had been built between the landing at Plymouth Rock and 1955.

2. If we couple this increase in the number of births with the increased emphasis upon college attendance by a greater percentage of young people who

in the past terminated their formal education with graduation from high school, it seems reasonable to assume that a greatly expanded system of post-high school educational opportunity is needed. I think that one way that this expansion can take place is to increase the size of our existing institutions but I believe that this is only part of the answer. Some senior institutions will not wish to expand their facilities or cannot do so. I think we have some evidence to support the idea that there is an optimum desirable size for colleges and universities and after you reach a certain point the benefits are less than the cost of the programs which are provided. An interesting statistic on this point came across my desk recently. In 1930 less than 30% of our young people graduated from high school. Now the percentage is about 65%. In 1930 college degrees were awarded to 140,000 people; this year the number will be about half a million. In the past 35 years the total price tag on the education and training which members of the American labor force carry around in their heads has approximately trebled and stands today well over 600 billion dollars or roughly ten thousand dollars for every employed person. Mr. M. J. Rathbone, Chairman of the Board of the Standard Oil Company, in one of his addresses on Human Talent, the Great Investment, has said this: "The most important capital that any economy possesses is in the skills which people carry around in their heads, and," he goes on the say, "the significance of this truth can be easily understood if we imagine two countries. In the first country only about 20% of the people can read and write. There is only one physician and one engineer for every 50,000 people and all of the other skills are in proportion. Suppose this country by some miracle should suddenly find itself with a physical plant equal to that of the United States: factories, modern farms, power lines, super highways, and all the rest--and suppose the second country, similar to the United States, went through a reverse process, losing all its physical capital but keeping all its advanced professional technical skills. Let then years go by and can anybody doubt that the country with the skills would end with a higher learning standard?"

3. The President's Commission on Higher Education in their report in 1947 stated that "Free and universal access to education in terms of the interest ability and need of the student must be a major goal in American education." They go on to say, "We have proclaimed our faith in education as a means of equalizing the conditions of men but there is grave danger that our present policy will make it an instrument for creating the very inequality it was designed to prevent. If the ladder of educational opportunity rises high at the doors of some youth and scarcely rises at all at the doors of others while at the same time formal education is made a prerequisite to occupational and social advance, then education may become the means not of eliminating race and class distinctions but of deepening and solidifying them." In their report, as you know, they stated that the time had come to make education through the fourteenth grade available the same way that high school education is now available, and they suggest that this should be tuition free.

4. The battle to make education through the high school essentially free and essentially varied in types of programs and accessible to all youth was a hard fought battle. Certainly it is part of our national belief--our American dream--that young people should have the opportunity to go as far in education as their talents, desires, will and strength of purpose will allow them to go. This is being extended to day into the higher education level. Elmo Roper in a recent survey reported in Fortune magazine showed that 83% of all the people want a son of theirs, if they had one, to go to college; 69% wanted college for their daughters. Thornton has stated this basic wish in a little different way

by saying, "Still believing that their children should rise and seeing in the secondary school and college the principle avenues of mobility, the people sent their children to secondary school and college. The American people are learning what the people of older cultures have learned--that schools are the social elevators in a hardening social structure."

5. Another force calling for the establishment of a more diverse pattern of educational opportunity has been identified by Mike Brick in Forum and Focus for the Junior College Movement as the technological progress which has been made. Brick indicates that "American scientific advances and growing world responsibilities have created an unprecedented demand for college trained men and women. The American people have come to understand that their national security welfare depends fully as much on their human resources as upon existing productive capacity and natural resources. They have to come to understand that men and women increase in value to themselves and to society when they are educated."

Rathbone stated, "I do not think that we as a nation have quite grasped the extent to which technological change has accelerated in our time. Nowadays it may take only a very few years from the first descovery of a new phenomena such as the superconductivity of metals at very low temperatures to the successful application of that phenomena in engineering. When you consider that some 90% of the research scientists who have ever lived are still alive today and that half the research and development money spent in all the history of the United States was spent in the last eight years, you can be sure that this technological acceleration is by no means at an end."

Ernest O. Melby in a recent address before the National School Board Association in Houston, Texas, has been quoted as saying that "in 1930 about one in four of the American work force was engaged in unskilled labor. In 1960 only one in sixteen were so engaged. In 1930 only 16% of our work was engaged in high level professions, technical and managerial work, while in 1960 this percentage was nearly 30." Let me point out here that not only does our economy need skilled people to run these machines, perform the higher level tasks, but we also need the wages which these skilled people will turn back into our economy. Harold Kastner, one of our doctoral students, in his study on the economic implications of establishing community junior colleges, found that the typical male community college graduate earned about 60,000 more dollars over his life time than did the high school graduate. For the female it was less--about $45,000. With our rapid technological advances, I think that it is imperative that we study our post-high school educational structure today to determine what we are doing to prepare students for the world of work; and beyond putting in their hands the skill which they will be able to use immediately in earning a living, what are we doing to develop within them an attitude toward adapting what they have learned to new demands; what are we doing to make them flexible? When we consider that some 70% of the skilled trades in American manufacturing in the year 1900 do not exist today, I think it is safe to assume that a large proportion of today's skills will become obsolete in the next 25 or 30 years. One of the labor department's statistics indicates that the average high school graduate of today will be employed at three different occupations before he finally finds that one which he will pursue and even that one I am sure will be modified. I don't think that this is alarming because I believe that of all animals man is the most adaptable. He is born into this world unspecialized; we train him. We could prepare him to turn his energies, his talents, his brain, and his hand to an infinite number of different tasks but I believe that flexibility and adaptability wither and die unless we do something deliberately to nourish them. Rathbone said, "Before a student becomes a specialist of any kind, he should first learn to understand what he reads; to think for himself and express his thoughts clearly; to handle the basic tools of mathematics and their application to daily life, to grasp some of the realities of his natural and human environment. If he has learned these things he will have learned how to learn. Such an education is like a master key that opens many doors. The man who has it need never fear becoming the prisoner of an obsolete skill."

George Meanie, President of the AFL-CIO in an address quoted recently by Edmund Gleazer said, "It is a great misfortune that somewhere along the way many Americans have mislaid the old concept of the dignity of labor. Too few of our citizens realize that modern technology has increased rather than diminished the skills required of the individual craftsman. Today's machinist is taught to work routinely with tolerances of a thousandth of an inch; the pipe fitter on a Polaris submarine must be able to keep allowable seepage down to one drop a year; the men who can do these things desreve every bit as much respect as the man who can prepare a legal brief." In a press conference, the late President Kennedy reported that automation had become such a factor in modern life that we are going to have to find 25,000 new jobs every week for the next ten years for people displaced in business and industry by machines. This state of affairs, he said, constitutes "the major domestic challenge of the sixties." One worker to whom I talked recently said that he had been displaced by a machine--that he was not working as custodian in one of the local department stores. He said, "I'm going to send my son to college so that he can learn to control the machine."

6. Another social force which I think is still in operation is that the initial age at which a young person can go into business and industry is being

steadily postponed. Ernest Melby said that in the next ten years 30 million young people will be added to the work force. If current educational levels and accomplishments continue, seven and one half million will not have finished the 8th grade. In talking with labor leaders I find that the age now at which young men can expect to enter industry in a reasonably good job is about 22. This raises a question in my mind as to what we are going to do with these young people during those years between their graduation from high school and the time when business and industry want them. If he is able to work at only part-time jobs or low skill level jobs, what is this going to do to him, to his perception of himself as a man, to his pride in himself? I don't think that we can afford this waste in our human resources. When I was working in Oregon with Dr. Leonard V. Koos on the study of post-high school education facilities in that state, as part of our study we studied the records of the FBI, particularly the arrests for major offenses. These were the offenses which resulted in being fingerprinted and being given a record. We found that the number of these offenses committed by young people rose sharply during the 18, 19, and 20 year age groups. These were the young people who were out of school and who were not working. They hung around corners, they got into trouble. After that age there was a sharp decline in the number of arrests. By that time some of the young people were either in business or industry, married, beginning to settle down, acquiring property and pride in family, or else they were in serious trouble and were removed from society. It seems to me that as we raise the age limit at one end--the age to which people will survive, and this is happening because of our medical discoveries, better diets, etc. -- that we probably also inevitably increase the period of training which is required before we allow young people to assume their role as an adult. Think back, some of you, and recall the age at which some of your older brothers, or fathers, or grandfathers were first introduced to the world of work and consider their expected life span and then contrast it with today. Baker Brownell in the College and the Community expressed it in this fashion: "Many educators and others are suggesting that college days be extended still further and that larger numbers of young people be included in them, thus numbers of persons would be removed from productive life and the employment problem supposedly would be ameliorated. The implications are obvious: increase more parasites so that the host will have a fuller employment supporting them, thus it all gets busier as the fleas increase." James Thornton in his book, The Community Junior College, says, "What we need are useful educational programs both to prepare youth for employment and for higher quality of living and to occupy them wholesomely rather than destructively."

I think another social force which is still in operation calling for a new type of education in higher educational institutions is the fact that many parents are concerned that their sons and daughters are too immature to go away to college and university and that what is needed is higher educational institutions where they live so that they can remain under the supervision and control of the parents for a longer period of time. This is particularly true, I have observed, of parents of daughters. I guess we parents of sons just say "let the neighbors worry about them." I think that we need educational opportunity where the children live; for another reason also we still find today that the cost of attending college away from home is one of the greatest deterrents to college attendance. We have found again and again that many young people cannot possibly find a way to finance four years of education by going away to college but if they can finance the first two years in a local institution where they can avoid paying board and room, they somehow find ways and means of financing the last two years. This does not seem to be quite as insurmountable a task to them as supporting themselves for four years. In a recent survey conducted in St. Louis, lack of finances was listed by 38% of the city seniors as their reason for not going to college.

7. I think that another force in operation calling for a reappraisal of our existing educational institutions is the fact that many of our young people suddenly blossom after mediocre high school records. For want of a better term we call them "late bloomers". These young people suddenly seem to grow up; their goals become clearer; life has more meaning and more purpose for them. With our selective admissions practices in our colleges and universities--and let me say that I am in favor of the selective admissions requirements as I believe the purposes of the university are different and that they have every right to insist upon the type of student who can successfully complete their program--but with this growing trend toward selective admissions requirements we are disenfranchising a considerable number of our young people. As B. Lamar Johnson put it recently, even in the junior college the open door in some institutions has become the revolving door. I ran across an item recently which illustrates to me this whole matter of the late bloomer and the need for making available to him some educational opportunity.

When Thomas A. Edison was a boy his teacher told him he was too stupid to learn anything.

F. W. Woolworth got a job in a dry goods store when he was twenty-one, but his employers wouldn't let him wait on customers because he didn't have enough sense.

A newspaper editor fired Walt Disney because he had no good ideas.

Caruso's music teacher told him, "You can't sing; you have no voice at all!"

The director of the Imperial Opera of Vienna told Madam Schumann-Heink that she would never be a singer and advised her to buy a sewing machine.

Leo Tolstoy flunked out of college.

Admiral Richard E. Byrd had been retired from the Navy as unfit for service until he flew over both poles.

Emile Zola got a zero in literature in his university course.

Louis Pasteur was rated mediocre in chemistry.

Abe Lincoln entered the Black Hawk War as a captain and came out as a private.

A literary critic once told Balsac he might follow any profession he pleased except that of writing.

Louisa May Alcott was told by an editor that she could never write anything that had popular appeal.

A famous London critic wrote, "Fraud, foam, nonsense, trash, balderdash!" across Browning's first batch of poems.

Think what the world would have lost if the door of opportunity had been permanently closed on them.

ASSOCIATE DEGREE NURSING PROGRAMS:
PHILOSOPHY, PURPOSE AND CURRICULUM *

Dr. Bob Wiegman discussed with us this morning the overall community college movement, the philosophy and purposes of the community college and some of the factors involved in the evolution of this relatively new educational enterprise.

Now let us consider the development of associate degree nursing programs--the basic philosophical approach, the general purposes and some of the fundamental curriculum organizing constructs of these programs.

The original development of community college nursing programs began with a five year project which was an outgrowth of Dr. Mildred Montag's doctaral dissertation in the early 1950's. A rather comprehensive report of this project is available in book form--Mildred Montag. Community College Education for Nursing. New York: McGraw-Hill Book Company, Inc., 1959. I do not intend today to defend or justify the existence of associate degree nursing programs. I assume, on the basis of published evidence, that they have already proven themselves as educationally sound and desirable. I assume further that you are convinced of this or you wouldn't be teaching in one. So my remarks today are explanatory rather than persuasive. There is one point I would like to mention briefly which has been touched on in this morning's discussion. When Dr. Montag first proposed this new type program, she called the graduates of the program nursing technicians. Now this caused all kinds of consternation among nurses because of a variety of historical factors, e.g. struggle for professional status, etc. As Bob Wiegman pointed out this morning technical skill is highly prized in modern

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* Primary reference source of remarks is: Mildred Montag. Community College Education for Nursing. New York: McGraw-Hill Book Co., 1959.

society and a good technician should be held in high regard. What I am saying here is--it is better to be a darn good technician than a lousy philosopher and that the really good technician should be highly prized and respected. It seems to me we ought to start calling it as we see it. There is absolutely nothing wrong with being a technician--particularly a good technician. It has equal value and integrity with any other level in the scheme of things.

Assumptions

The basic premiseupon which this new progrmm was developed was that the functions of nursing can be differentiated into at least three distinct levels of functioning: first, professional; second, technical; and third, assisting. And each of these levels has a different role and function. It follows then, that if the function is differentiated the preparation for the functioning should be differentiated. This would lead to the conclusion that there should be different kinds of programs preparing practitioners at each level. (Preparation for the "assisting" level was seen as in-service type programs.) Another concept basic to the development of associate degree programs and probably the prime motivating factor giving strong impetus to the community college nursing program movement was the growing conviction on the part of nursing educators and the nursing profession in general, that nursing education should be incorporated into the general educational framework of the country. Other assumptions basic to the development of community college nursing programs were:

(1) The great bulk of nursing functions lie in the intermediate category, the semi-professional or technical. Therefore, the greatest number of persons should be prepared to fulfill these functions.

(2) The junior-community college, the post-high school educational institution specifically suited to semi-professional or technical education, is the logical institution for the preparation of this large group of nurses.

(3) When preparation for nursing is education, rather than service, centered, the time required may be reduced.

Criteria For Establishment of Program

As a result of the Montag project and considerable subsequent experience related to the establishment of community college nursing programs, certain criteria have been identified which are essential to the development of a sound nursing program. These criteria are as follows:

(1) There should be an interest in this type of program and the desire to develop a program that departs widely from traditional nursing programs, both in college and in hospitals.

(2) The initiative for the development of the program should come from the educational institution rather than a hospital of hospitals.

(3) There must be a readiness in the community for this type of program.

(4) The institution must be willing to assume complete control of the program

(5) The institution must be willing and able to provide and pay for the new program in nursing.

(6) There must be acceptance of the nursing program by the college faculty and provision for the students in the nursing program to become, in fact, full students of the college.

(7) The learning experiences (clinical experiences, etc.) necessary for a nursing program must be available.

(8) The hospital and other community agencies must be willing for the college to use their facilities in providing learning experiences for students.

(9) The educational institution must have community relationships that will permit coordination of the various facilities.

(10) The division or department of nursing must be of adequate size.

(11) Licensure of the graduates must be possible.

(12) There must be a reasonable assurance that the graduates of this new type of program will be employed.

These criteria may seem self-evident and their enunciation unnecessary; however, they are not as clearly recognized and adhered to as you might think.

Faculty

Since one of the major tenets of community college nursing programs philosophy is that the nursing programs should be an integral part of the college, the requirements for appointment as a nursing faculty member should be identical with those requirements for faculty appointment in other areas and the college as a whole.

There is not a precise formula for determining what the size of the nursing faculty should be. The size of the faculty is necessarily dependent on the number of students, the type of program, and the location of agencies used for laboratory experiences.

Availability of adequately prepared faculty for a nursing program has been and continues to be a problem, but this should in no way be construed as a recommendation for lowering requirements for nursing faculty appointments. Rather, availability of qualified faculty and recruitment potential for faculty should be a prime consideration in the decision of whether or not a community college program should be established.

Curriculum

The basic conviction that education for nursing should be within the organized educational framework of the country led to a rather different philosophical approach to nursing education than that which was the general pattern of the time.

As with any other type of educational program you must first very carefully and clearly describe what it is you are trying to produce--some concept of the desired end product. Then you build a curriculum to achieve it. The educator has three variables he can manipulate to get this desired end-product: (1) people; (2) facilities; (3) money. With this previously outlined approach to curriculum design, two general principles can be elucidated: (1) learning experiences are controlled by the objectives i.e. curriculum determined by desired end-product. The only acceptable justification for the inclusion of any experience in the program is that it contributes to a defined objective of the program. (2) Learning experiences should be selected first when you select the place and determine the time needed to meet them -- not the reverse. Learning experiences should be sequential--each experience built on and utilizing the previous experiences. The concept has many curricular implications, e.g. rotation plans.

In summary then, the operational plan is this:

(1) Development of a statement of philosophy which undergirds everything.

(2) Statement of objectives which are directly derived from the philosophy and which are clearly stated in terms of behavioral outcomes. This is the map.

(3) Selection of learning experiences--each selected in relation to a specific objective(s).

Criterion for the selection of a learning experience is that it must be important in the practice of the graduate nurse or it doesn't belong in the curriculum.

Essentially this means that the course content that we have generally considered "traditional" must be re-worked into a sequence of student-orientated problems. Continuous evaluation must take place to determine if objectives are being met in the most effective and expedient way and curriculum modifications should occur as a direct result of this evaluation.

Characteristics

Certain characteristics of associate degree nursing curricula have been defined and I will discuss each of them briefly:

(1) The curricula includes both general and specialized education.

(2) Specialized or nursing courses have been reorganized and placed in a different sequence.

(3) The use of the many and varied facilities for rendering health services which each community provides.

(4) Duration overna two year period.

(5) All faculty members are appointed, selected and paid by the college.

(6) All nursing faculty members meet the same requirements and responsibilities as other college faculty.

(7) The students in the nursing program enjoy the same status as all other students in the college.

General Comments

In reworking traditional course content into broad area groupings, three major curricular areas are identified for associate degree nursing programs. These areas are: (1) fundamentals of nursing; (2) maternity and child or infant care; (3) nursing in physical and mental illness. Note the emphasis here on broad grouping of subject matter rather than numerous fragmented and frequently uncoordinated courses.

Another principle, that learning experience should move from normal to abnormal conditions, from simple to complex tasks is fundamental to curriculum design in associate degree nursing programs.

The curriculum is considered to be the responsibility of the entire college of nursing faculty. The concepts of groad area groupings and the inherent necessity for sequential curricular planning requires close and continuous communication and planning between all faculty members.

The length of the program has received so much emphasis that it has taken on unusual significance. While shorter than the traditional program, the length is less significant than the underlying philosophy and the methods employed in implementing it.

It is quite clear, I think, that simple exposure to knowledge does not in and of itself imply learning. We must design curricula to facilitate transfer of knowledge and adaptation. How people learn is influential, or should be, in choosing learning experiences. Then, for any meaningful evaluation of a learning experience we need evidence--behavioral evidence--that the student has learned what we thought we were teaching.

It also seems quite clear that all experiences are not equally educative. Thus, in curriculum planning, we must be selective. This is probably one of, if not the most, difficult problems in curriculum design. Students can never know all there is to know and we can never teach all there is to teach, nor should we try. The role and legitimate purpose of an educational program is to give the student the wherewithal to become an expert practitioner, not to produce a finished product. In a modern dynamic society, we must be able to presume the continuing educational process of the graduate or we would all be obsolete in five years. In-service education programs are one major vehicle for providing this on-going educational process. One should also be able to count on the fact that the practitioner will assume some responsibility for her continued growth.

Fundamentally then, the purpose of our being here at this workshop is to translate these general principles into operational plans -- plans that will have real meaning and significance to you when you return to your home situation.

DEVELOPING A STATEMENT OF PHILOSOPHY AND PURPOSE

I am convinced that almost no activity a faculty who is developing an associate degree nursing program will engage in, is as important as the activity of developing the statement of philosophy and purpose for the program. Since all education is an outgrowth of philosophical belief, a philsophy of nursing education is the application of the fundamental beliefs of a person or a group to the field of nursing education. Every phase of your nursing education program will be influenced by the philosophy upon which it is based. It will determine the students you select, the preparation of the faculty you employ, the development of your program of studies, your attitudes towards patients and the community in which you are functioning, and consequently, the attitudes your graduates will have in these areas, your attitudes toward professional growth and nursing and thus, again, the attitudes your students will develop.

I'm not proposing that students who enter our programs at age 18 plus will be changed in every way by the teachers with whom they have contact. Some may be changed almost not at all, but many will be changed considerably. Therefore, it behooves a faculty group to come to understand well what they think about nursing education and the learning process, the practitioner being prepared, and their role in relation to the student. If in addition, they can articulate these beliefs in a statement of philosophy and purpose, theirs will be a harmonious environment for the student. Or if it is not harmonious, at least it will be real in terms of that which the faculty believes. In addition, it will provide a base on which to develop a program which the faculty understands and in which they have confidence.

Nursing in its highest ideal is essentially a profession of charity. We must be concerned not only with guiding students to acquire knowledge of the principles and facts underlying nursing practice and to develop skills that are part of the art of nursing, but in guiding students so that as practioners they will give the best possible service to all who come under their care.

Nursing is a social profession. It aims at the best possible nursing service for society which includes the promotion and conservation of health as well as ministration to the sick. To realize this aim, nursing education must teach the student to see the patient not only as an individual whose needs are limited by the four walls around him, but as an individual who is a member of a family and a community. If these are the beliefs of a faculty they cannot be taught in a course or courses. These ideas and ideals must permeate the entire curriculum. Thus, in basic beliefs relating to nursing, people, education and society in general there should be general agreement within a faculty group if a productive environment for growth of both faculty and students is to evolve.

When we began our program at Manatee Junior College six years ago, we had some exceptional opportunities. We are one of a few, if not the only program in the country, who had a planning year with a faculty group of five. We were able to add two more people to our staff four months later and thus for part of the year we had a faculty of five working to develop this new program. We used our statement of philosophy and purpose as the tool through which we came to know each other, to know how we felt about nursing, how we felt about students, how we felt about learning. It was the first task we set for ourselves and it was a task which took several months.

I had become imbued several years prior to this with the necessity of developing a program in this way. I had been part of teaching situations where there were quite divergent philosophies in operation. Sometimes the group was aware of this and sometimes they were not. I had been in other situations where the philosophy of the faculty in relation to nursing and to many other aspects of living was similar, at least relatively so. This did not mean there were not differences of opinion about how to get where they were going, but at least there was a common acceptance of a goal towards which they were striving and of many aspects of the methods by which they would get there.

In the associate degree nursing program this is particularly important because the practitioner whom this program prepares is a different practitioner. This is not a three year program condensed, modified, changed and squeezed into two years. It is a totally new approach to teaching nursing. It prepares a different practitioner, a semi-professional technical practitioner, a competent practitioner, one who thinks and sees nursing differently than the diploma graduate. I know now this is true. I had to learn it and I think those of you new to nursing education at the associate degree level will have to learn it too.

But if you can accpet from the beginning that this is a different program, that you are preparing a semi-professional nurse who has a specific role to play in nursing care, and that you must identify those skills and that knowledge which is to be part of this changed program, you will help yourself a great deal. If you will then sit down and write down and write down what you believe about the program, keeping these ideas in mind, you will have a base from which to develop the rest of your work.

In our situation this task took several months. During this time we worked to develop other aspects of our program. We were active in recruitment as well as in education of the public. We were concerned with designing a suitable classroom facility, with surveying health agencies in the community, with selecting books for the library, and with becoming part of the college faculty. We met and worked with people in projects and programs not primarily related to the development of the nursing program. However, a major portion of our time during the first four months was spent in formulating the statement of philosophy and purpose, discussing it, revising it. After these first four months two new faculty joined us and we spent time again working with the statement.

If you were to read this statement you would find that it consists of a general statement as to what we think nursing is, a statement as to what we think education is, and then a statement of how we think students learn. For five people to put down in approximately 350 words their opinions on these matters involves a great deal of work as they sift through to its essence the meaning that these words and concepts have for them. Our purpose states first the type of practitioner we are preparing and then identifies the objectives for the program. (Philosophy from MJC read in part to exemplify above.)

I do not present this as a statement of philosophy and purpose for your program or for any other associate degree program. I want to make the point that it served to clarify in our minds what we thought and felt about nursing and nursing education. It established the overall direction we would take in the program, it gave us leadership towards a goal we understood because of our lengthy discussions, a goal we are still pursuing in the curriculum work we do. It provided us, in addition, an opportunity to come to know each other rather well and undoubtedly set the stage for the way in which we continue to work together.

Because we began by developing this statement together, we established the idea that the implementation of the program would be a group effort. Once we had worked together in a prolonged and rather intense way to develop this statement, we never again moved apart in the implementation of it. By this I mean we have retained from this initial working together the idea that the responsibility for the program lies within the group as a whole and that all work done by individuals within the program will ultimately be brought to the group for final approval. It is not possible in our program to implement a unit of study or a course which is not in keeping with the philosophy and purpose, for such a unit or course would not be acceptable to the faculty group, and it would have to be approved by the total faculty group before it could be implemented.

I am not suggesting this is the way all associate degree faculty groups must function. I would be less than honest with you, however, if I did not say I think this would be the best way for you to function. It may seem to you that in structuring a program this way you might be denying individual initiative. We have not found this to be true. The opportunity to try new ideas, to seek new ways to do things, and to seek creative solutions to difficult problems has not been stifled by our adherence to the idea that the group and no individual is responsible for major decisions about the program.

I make this point because I feel far too often we give lip service to the idea only to find that in actuality we are unwilling and sometimes unable to function in this way. Making yourself, thereby, if you accept this philosophy, subject to the group's decisions is not always easy. Indeed it is not even comfortable. It does, however, keep the entire group involved and moving towards the ultimate goal of the program. It provides the individual faculty member the support and guidance of her peers; and it offers the faculty member, if she or he is mature enough, the opportunity to be creative and to grow in a very democratic environment.

In some situations where only one or two people are involved in the initiation of a program, it is necessary for these people to develop a statement of philosophy for use. But if it is desired, this statement may be used as a tool through which new faculty as they join the program may begin to know the program and its protagonists.

When the philosophy operating in a situation in which you are teaching is contrary to what you believe, you will not teach there too long. It is not the words that will tell you whether or not the philosophy is different, it is the way in which the words become reality. I suggest, therefore, that you will find out how you are going to implement your statement of philosophy as you sit down and discuss what you believe about nursing and nursing education. The end result of this disucssion is a selection of words to express your beliefs, but more importantly you will emerge as a group with a common goal, some beginning understanding and acceptance of each other and a beginning knowledge of how to work together to achieve the tasks you have before you.

CURRICULUM DESIGN IN ASSOCIATE DEGREE NURSING PROGRAMS

The associate degree nursing program has developed in great part as it was envisioned in 1952. Programs differ in detail from one section of the country to another and within any given state. These differences are based primarily on three factors. First, the philosophy and requirements of each community junior college, second, the requirements of the State Boards of Nursing, and third, the tenor and philosophy of nursing in a particular state or region. There are certain characteristics, however, which give form and design to each program. These are briefly the following:

First, the program is college controlled. This means that the program is an integral part of the total college program and the nursing faculty an integral part of the college faculty having the same policies for employment, salary, tenure, etc. The nursing program may fit into the organizational structure of the college in many ways. Nursing may be a department along with communications, mathematics, science, etc. if this is the organizational pattern within the college. The nursing department may be in the technical division of a health occupations division if this is in keeping with college structure. Organizational patterns vary from one college to another and no one pattern need be followed.

The faculty of the nursing department plans the program of studies for the nursing program and teaches all the nursing courses as in other departments. The college will have a series of steps through which a program of studies or curriculum must go for initial approval and/or revision. There will be an overall college curriculum committee (whatever its title) and final approval of the program of studies of curriculum comes from this particular body. But the initial responsibility for planning the program and for instituting changes lies with the faculty in the nursing department.

Students in nursing meet the requirements for admission to the college and in some instances meet additional requirements particularly if the college has an open door policy, with high school graduation being the only requisite for admission to the college.

Secondly, this is a two year curriculum which combines both general education and technical or nursing education. Our designation for this program presents problems regardless of what we call it. When we say a two year program, this means to some that it is a two year, 24 month program. When we call it the associate degree program, this means to some that the associate degree is the degree received by all graduates. Neither of these facts is true in all instances. The important point is that this is a curriculum which ordinarily is planned within the two year span of the community college.

In the program general education courses should account for one third to one half of the total number of credit hours while nursing courses account for the remainder. Many programs now have nursing and non-nursing courses in about equal ratio with some State Boards requiring this. This has come about as faculty have found how useful the general education courses are and as they have learned how fast students learn. Programs that began with a larger number of credit hours in the nursing area have found that these could be reduced below that which they originally thought possible. The general education courses the nursing students take are open to other students in the college. The nursing courses and the general education courses run concurrently through both years.

A third characteristic is that the number of nursing courses is fewer than in our traditional programs. The nursing courses are broader in scope and they attempt to bring similar content together to avoid duplication and repetition. Our fragmented curriculum of the past with many courses has been replaced by this broad approach. You no longer see the program of studies identifying courses in nutrition, drugs, solutions, communicable disease nursing, etc. for in many programs these are units or parts of units where such content and concepts apply.

Fourth, clinical nursing practice is planned as laboratory practice comparable to the laboratory practice of other lab courses and is given college credit. This makes it incumbent on the nursing faculty to identify needed learning experiences so that each laboratory exposure will be as meaningful as possible. This has resulted in much shorter laboratory periods than we have been accustomed to for as was suspected, it is not possible to plan new and interesting laboratory experiences 8 hours a day, days on end. In all labs the instructor is with the student during the entire laboratory session.

Fifth, many facilities in the community are utilized to provide the variety of nursing experiences desired for the program. Since the program is in no part hospital controlled, a variety of agencies may be used including hospitals, health departments, nursery schools, physicians' offices, and nursing homes, just to name a few. At no time in the program is the student a worker in the health agency. The clinical experience is planned totally for learning. This does not mean that the student does not give nursing care as part of the learning process; but such learning experiences are not planned to meet nursing service requirements in a particular agency.

Sixth, the student enjoys the same status and functions under the same policies and regulations as other students in the college. The student must meet the same admission requirements, the academic requirements for promotion in effect in the college, and the graduation requirements which are part of the degree to be granted.

Seventh, the tuition and fees paid by the nursing students differ little from those for other students in the college. The major difference will lie in the cost of uniforms and this can be a very nominal sum in this program. Placing the program in the public community junior college has been a tremendous advantage financially for associate degree nursing education. The college has a much broader base for support than the hospital school deriving its funds from taxation and endowment in addition to fees and tuition. This is a much sounder way to support such a needed educational program in a community.

Eighth, students live at home or make their own living arrangements for very few community colleges have on campus living facilities. In most junior colleges students commute and are responsible for their own transportation. Since every program will have some students who come from a distance some thought has to be given to living arrangements for these students. However, in most instances the responsibility for student housing lies with the Student Personnel Department and the nursing department need handle this no differently.

Ninth, students qualify for and receive the associate degree. The designation for the degree will depend on the requirements of the college. In some instances the associate in arts degree is granted and in others the associate in science, the associate in applied science, or the associate in arts in nursing, to name a few. This is a decision that will be made within the individual college according to its philosophy, programs and requirements.

Tenth, the graduates of the program are eligible to take State Board examinations for licensure as a registered nurse in the state in which the college is located. This is the broad framework within which the nursing faculty will function as they plan for the new associate degree nursing program

A new faculty whose job it is to plan a new program will be faced with many questions. I'm going to raise two or three immediate and important questions and then let's discuss them. One which will arise relates to students.

Who should be admitted to this program and how? Are there problems peculiar to nursing that will call for changes in admission policies and procedures? Secondly, how does one go about developing 'the best program of studies or curriculum to be offered'?

The question of who should be admitted to the program and how the students should be admitted will arise as soon as it is known in the community that a nursing program is to be offered. The college will need to be ready to answer these questions. The answers will be found as the college entrance requirements, procedures and policies are explored thoroughly, and as the nursing faculty then determines the requirements to be met by the nursing students. The student must meet the college entrance requirements. Whether there should be additional requirements is really the question. Several remarks pertain here. First, I doubt if it is efficient or fair to bring every applicant into the nursing program even though the college has an open door policy. All applicants will not be successful in nursing. Perhaps one should identify minimum requirements beyond 'high school graduation' for admission to the nursing program. In so doing, I would caution you to remember the other side of this coin. Requirements for the associate degree nursing program need not be as high as requirements for admission to baccalaureate programs. This is an area in which we need considerable study and integrity for our obligation to students is to direct them into the program which is best suited to their academic potential, their interests, and their financial ability to attend college.

We can look at this problem in another way. One of the tremendous advantages of the junior college is its flexibility. The student with seemingly less potential may complete this nursing program and be an effective practitioner if the program is planned over a three year rather than a two year period. In some instances it would be wise to require a year of study in the college to validate the student's ability to do college work and then bring him into the nursing sequence. In other instances it may be necessary to plan for the requirements to be met over a three year period if student must carry a reduced schedule or if the student is not successful in the first or second semesters and yet seems to have the potential and personality that would make it possible for him to complete the program.

Within the framework of the junior college we are able to make these kinds of decisions about students and help them thereby to accomplish their goals. This was not as easily accomplished in the diploma program and is not as easily accomplished at the university level. In most instances problems and questions such as these which relate to the admission and retention of students should be discussed thoroughly with the registrar of the oollege and the Student Personnel Department. These people will assist the nursing faculty to find appropriate answers within the college framework.

The question of what to include in the program of studies has many facets. The faculty must first become fully aware of the college requirements for the degree to be granted. Some of the differences to be found among programs in total number of credit hours and in the kinds of general education courses required are related to particular college regulations.

The faculty should think as broadly as possible of the general education area selecting courses in communications, the social sciences, history and the humanities, and health and physical education as well as courses in nursing and the physical and biological sciences. It is important that these courses be included in a logical sequence at such times as they will make the greatest contribution to that which the student is learning concurrently and sequentially. This is difficult for we could be happier if we could include all general education courses prior to the nursing content and have it as a base upon which to build. This, of course, is not possible and we must make decisions about placement in the most objective logical way possible.

The question of the length of the program is bound to arise and is one which has been handled differently in different parts of the country. Programs that began as part of the Cooperative Research Project in the eastern states were from their inception almost two full years in length. It was a necessity in California and it set a pattern for California. Thus, we had in these two parts of the country a little different approach to this program. In Florida we have chosen the middle of the road with many programs having one summer session. It is well to remember that the pattern which you initiate will be somewhat difficult to change. Therefore, this is a question to which you will want to give considerable time and thought. It is well to remember, too, that all patterns have been equally successful, and I suspect you will find, as many programs have, that once the faculty becomes adept in planning this kind of program even one summer session will not be a necessity.

In designing a curriculum credit allocation is something to be considered and understood. The credits allocated to nursing courses should be allocated in much the same way as they are to other courses in the college. Most college patterns will offer considerable leeway as for as credit for laboratory practice is concerned. You are apt to find laboratory courses on your cmapus using varying ratios for credit. In some one credit will be given for two hours of laboratory practice, in some one credit for three hours of laboratory practice. One may choose within the college framework that which best fits the nursing program. In most instances these should be enough variation within the college to offer the nursing faculty the variation needed for nursing without adopting something new.

The number of credits to be given to the nursing courses should be relatively similar within each of the semesters of the first year and each of the semesters of the second year. It may be wise and necessary to increase credit in nursing courses in the second year. However, one needs to think this through carefully. Does the rapidity with which learning takes place increase a great deal in the second year? If not, will a great increase in clinical experience provide more learning opportunities or unnecessary repetition of that which has been done before? A balance in the number of credits given for nursing courses from one semester to the next will also make the planning for general education courses to be given simultaneously somewhat easier. The nursing faculty needs to become facile in thinking 'credits' and in explaining their courses in terms of lecture hours and lab hours.

State Board requirements play a definite part in the structure and final design of the program of studies. The nursing department has a problem somewhat different from that of other departments for they must meet the requirements of the college and have their proposals and revisions accepted by the college curriculum committee and faculty, and they must, in addition, have these same proposals and revisions accepted by the State Board of Nursing. This, however, is not the problem it was thirteen years ago.

As the associate degree program was beginning state laws and regulations were often an obstacle to the program. In the Cooperative Research Project the State Board of Nursing in the six states involved were asked to give these programs complete freedom in developing the curriculum and to eliminate all regulations as to time, sequence, course hours, numbers, etc. California did so to a great degree but for a five year period the two year time span was adhered to quite strictly so there would be time to study the effects of change. This time restriction did not give as much freedom to the newly developed programs as was allowed in the other states and the beginning programs developed somewhat differently.

In 1965 we can say that State Boards of Nursing become quite flexible in what they will allow the associate degree programs to do. At the present time there are only a few states that have barriers either by law or by regulation to programs of less than three years in length. Programs initiated where State Board regulations are restrictive must work very hard with the State Board groups; for if this is done needed changes will come. I do not think it wise to develop the program within restrictive regulations if it means the program is going to be different in basic pattern from associate degree programs nationally. For example, an associate degree program needing to be three years in length because of the state law really does not have the opportunity to develop as a sound associate degree nursing program. But time is not the only factor. There are other restrictive concepts which have been part of diploma education which should be changed for the associate degree program. Such changes will come if faculties within states understand the need for change and work with the State Board to accomplish them.

The task of curriculum design will be very time consuming and should be for it is one of the most important tasks a new faculty will undertake. It will be necessary to review all courses offered at the college and to select those which will most effectively fit into the program of studies for nursing. It may be necessary to set up new courses in the college particularly in the physical and biological area if satisfactory courses are not available. It is not wise to include a course in child psychology or general psychology or sociology or in any other area because it is something we have traditionally taught. It is important to review all courses offered at the college and then decide on the courses to be selected for the nursing curriculum. They should be selected only if they contribute to the goals and purposes of your program.

It is helpful in new programs to have an ad hoc faculty committee work with the nursing department in designing the overall program of studies. This would offer the faculty from other departments an opportunity to better understand this new program and the faculty in the nursing department the opportunity to better understand this new program and the faculty in the nursing depattment the opportunity to better understand the college.

The program of studies must flow, of course, from the statement of philosophy, purpose and objectives you have developed. It exists to implement this philosophy and purpose. Each and every member of the faculty is equally responsible for that which is to be taught and should have equal opportunity to participate in decisions made in the curriculum area.

Lastly, I can only say that after all your tears and anguish, it is my hope that each and every year you will make significant changes in your program. Some will be major changes, substituting one course for another, changing credit hours, changing sequence, etc.; many will be minor as the nursing courses are reviewed and revised. But change there must be if this is to remain a dynamic growing program. You owe this effort to the curriculum you design and implement today if you wish it to be healthy and active and appropriate for tomorrow.

FACTORS WHICH INFLUENCE SELECTION OF CONTENT AND LEARNING EXPERIENCES

Perhaps no aspect of the associate degree nursing program is more immediately indicative of the change which has been wrought with the program than the curriculum through which the student progresses. We have discussed certain characteristics which give form and design to the program. Let us think now of the nursing courses themselves discussing the process through which a faculty may move in selecting content and learning experiences.

The major changes in the nursing courses in the associate degree program are as follows: The courses have been reorganized and placed in different sequence. The number of nursing courses has been reduced, most programs have only four to six. Within these courses content has been selected with care and organized around broad nursing themes; and learning experiences have also been selected with care and yet with flexibility in order to provide meaningful learning without unnecessary repetition. Making this reorganization a reality in your program is the most crucial of your developmental tasks.

In planning nursing courses the following steps will serve as a guide. First, one must determine the scope of the course. The term scope refers to the ultimate intention of the course, the range within which its activities are to display themselves. In our space age culture the definition of this term to mean the distance within which a missile carries seems very logical to us. In our nursing courses the distance a course will carry the student is its scope.

The astronauts' last mission gave us a good understanding of scope. They had to stop pursuing that portion of the rocket which had separated from the space ship with which they were attempting to dock because they were running out of fuel.. They could only go so far in the space ship and this distance had been planned in infinite detail in relation to their fuel. They needed the fule for re-entry to the earth's atmosphere.

You can only go so far in a course. As a faculty you must first determine how far you think this should be. This is the first step in developing the course and you accomplish this by sitting down as a faculty group and deciding what you want the student to know and to be able to do when he finishes the course.

Having identified some ground rules and the scope, the second step is to write objectives. The major need with objectives is that they be stated simply and clearly. This is often a task disliked by faculty groups. It is undoubtedly disliked because it is difficult to decide on the words to use for this is a word game. We are often misled into thinking it more sound educationally to have high sounding phrases rather than simple statements of intent.

Objectives are most helpful when they identify the behavior to be attained by the learner and the area in which such behavior is to operate. Such statements contain the essentials for testing. They also serve their other central purpose of guiding the selection of the learning experiences which will need to be sought.

In the development of a program the quality of organizational wholeness or consistency is dependent on like expectations as sequential learnings are planned. If objectives for one course or unit consist of broad general statements with no direct determination of the behavior to be learned and for another course or unit are so specific and restrictive that freedom of action is not allowed, a contradictory situation exists which will lead to confusion on the part of the student with diminished learning on the part of the student. It will lead, also, to frustration on the part of the faculty who fail to understand why students perform in ways other than that which they expect.

There are different ways to state objectives but there are basically only three types of objectives; those that have to do with knowledge and understanding, those that have to do with skills, and those that have to do with appreciations and attitudes.

We have learned to write specific objectives for each of our nursing courses and to express these objectives in specific behavioral terms. We began by developing objectives for our first course Fundamentals of Nursing I. The instructor responsible for this course assumed the task of formulating a list of objectives describing content and experiences the faculty had suggested should be included. Then as a faculty group we discussed them. We asked ourselves these kinds of questions: what is meant by this objective, what content will be taught in relation to it, what learning experiences will be sought, is it an appropriate objective at this level in the program (can it be achieved), and how can it be evaluated? This was a lengthy and difficult task. Having completed the objectives for Fundamentals of Nursing I, we developed the objectives for Fundamentals of Nursing II and then for the courses in the second year. This was done course by course building one on the other and each year we continue this activity as the faculty reviews the objectives for each course before it is taught going through the same process if there are revisions to be made.

By learning to state our objectives specifically and in behavioral terms, we identified and thereby delimited the content and experience we would offer and at the same time identified some of the problems facing us in the area of evaluation. We chose four behavioral terms to be used in writing objectives and defined them so we would have a common frame or reference when they were used. We used the terms 'to know' and 'to understand' to state those objectives which have to do with knowledge and understanding. We used the words 'to know how to' and 'to have skill' to state those objectives which have to do with skills. We do not have objectives in our courses that identify appreiations and attitudes to be developed. This is not to suggest that attitudinal objectives are not appropriate objectives. Our reason for not including them is that measuring them is extremely difficult and at the present time we do not have adequate tools. This does not mean that we do not teach to certain attitudes and appreciations in our program for we do; but the attitudes and appreciations to which we teach are not stated in our objectives. This is an inconsistency and I can only justify it in this way.

As a faculty we are aware that our explicit objectives are fairly well stated and that we operate equally frequently on our implicit objectives - which are not. As a group, however, we are fairly consistent in the behavior we expect from students in their learning role and thus there is not too much inconsistency here. But as every new person comes into a faculty group he must have the opportunity to learn of the philosophy and purpose in operation and really needs to adjust to it fairly well if student learning is not to be disorganized.

In defining the terms to be used in writing objectives it was not our goal to find terms that would immediately be understandable to everyone who read them; but to identify and define terms that would make it easier for us to communicate with each other and I think this is the first need a faculty has.

With objectives specifically stated, one may move to develop a course of study and within one's course units of study which will implement the identified objectives. In order for educational experiences to produce a cumulative effect they must be organized so as to reinforce each other for organization affects efficiency of instruction and the degree to which the student will learn that which you want them to learn.

The next step then is to select an organizing theme. There are many ways of approaching the organization of content so long as the plan is logical and purposeful. Some of the approaches, ideas or concepts used to organize nursing content are known to each of us. The 21 nursing problems have been used, growth and development concepts and patterns are used along with major health problems, age and developmental periods (a little different from growth and development), patient's needs, and others. All have their merits. These appraoches to organization differ from the systems of the body, diseases, and hospital geography which we used for many years. These new approaches cut across clinical lines and look to broader and more general concepts of nurse and patient action, reaction and interaction and the kinds of knowledges and skills needed to provide effective nursing care.

It is unlikely we will ever identify one approach, concept or idea as being most effective for content organization. Instead the most effective pattern for you will be the one you decide upon in your faculty for only that which you can agree upon and feel comfortable with will be effective in your situation.

Having selected an organizing theme the next step is to select the content to be taught and the learning experiences needed. In so doing certain criteria may be used to determine whether that being planned is being planned soundly. Tyler cites three criteria for determining effective organization: continuity, sequence and integration. Let's take a look at each of these to see what they mean.

Continuity refers to vertical re-iteration, something that is recurring and continuing to recur so that the learner has an opportunity for reinforcement. For example, if we decide it is necessary that students know how to give a bed bath at the end of the program this kind of experience should occur again and again so the student can learn it. Certainly there may be a different approach to the experience as it is planned rather than simply repeating the activity, but the experience must be offered frequently enough that the student has an opportunity to learn it. Or if this is content we are referring to rather than a particular experience in patient care, content must be offered frequently enough so that the student has the opportunity to learn.

Sequence refers to the need for recurrence of an activity but it implies, in addition, that with re-occurrence there is significant increase in depth and difficulty of the experience. Merely having a certain kind of learning experience recur does not in itself provide for sequential learning. This implies that the faculty group has made judgments as to when in the curriculum certain kinds of increasing depth and difficulty should occur in relation to content and/or experiences.

We have handled this in the past in two ways. We taught the student everything there was to know about a certain procedure in patient care or condition in patient care at a given time, expected the student to absorb all the knowledge at that time, and asked for recall and application at some future time. Let's look at an example. We used to think that in order for a student to be able to perform the skill of giving intramuscular injections she must know how the order for the medication was written, how it was transcribed, how the medicine was made out, how the medication itself was ordered, and the action of the drug. In reality, the giving of intramuscular injections has many component parts, i.e. handling the syringe, the technique of injection, knowledge of the drug, etc. Each of these component parts may be taught at a different time in the program providing for the sequential learning we are talking about.

Another way in which we planned for sequence was by repeating an activity or content several times throughout the curriculum. I know of a program where each student who came into one clinical area was taught the giving of medications. The rationale of the instructor was that she wanted to be sure the students gave medications in the way she felt they should. This kind of recurrence does not satisfy the criterion of sequence for it adds neither depth nor difficulty which is significant to the recurring activity. In fact perhaps the only purpose it served was to make the instructor comfortable and the student confused. In the associate degree program where the time factor is a reality to be dealt with, this type of inefficient planning should be eliminated.

Sequence also implies that the faculty plan learning experiences in a logical ordered progression so that one experience builds on another. When we look back to some of our older organizational patterns we can remember that students having experience in the operating room were taught elementary concepts of asepsis which should have been taught earlier in the program if this concept is as important as we say it is. In fact it often was taught earlier in the program and then repeated and we wondered why the student lost interest. We remember when facts and concepts relating to dynamics of behavior were taught in psychiatric nursing, used there and never really used again. Yet when we look at the activities students were engaging in while giving patient care prior to and after the psychiatric nursing block much of the content discussed in relation to patient care was concerned with dynamics of behavior.

In many programs certain concepts regarding behavior are introduced early, carried as a thread throughout the program and need not be taught when the student has an experience with the patient who is mentally ill. At his time only that content which significantly pertains is taught. This has made it possible to reduce the student's experience with the mentally ill patient in length of time. At the same time it provides for better understanding of patient needs and dynamics of behavior because concepts have been introduced early and repeated in increasing depth throughout the program.

The third criterion useful in evaluating the organization of content and learning experience is that of integration. Tyler defines integration as that of horizontal relationships, the deliberate crossing of lines between discrete entities to provide the student the opportunity of seeing the relationship between the parts and drawing conclusions for himself. If compartmentalization is used as a means of organization so that each part of the curriculum skillfully and soundly developed as it may be remains an entity unto itself, the graduate of the program will of necessity be compartmentalized. The need for the graduate to see relationships and to be able to translate an observation from one setting to its appropriate use in a similar setting is one of the essential characteristics of a skilled person. It is our recognition of the need for this capacity which has led us to selecting commonly occurring themes, concepts and ideas about patients and nursing around which to build a total curriculum geared to general nursing needs of patients instead of the compartmentalized medically and geographically oriented curriculum of the past.

The last step in this process involves identification of essential threads to run throughout the curriculum, making specific plans to see that the threads are accounted for as each course is developed.

Having identified content and organized such, the next task is to select appropriate learning experiences. Within these nursing courses clinical lab practice is totally different and most changed. True, we use many agencies and this is different but the way in which we plan lab is the real change for in these labs students are there to learn and we select only those experiences which will provide the opportunity to do so.

The learning theory subscribed to by your faculty really comes into play here. It behooves a faculty group to look closely at the statements for learning they have included in the statement of philosophy. It might be wise, in addition, if they elaborated on this in some further statements identifying for each of them and committing them to certain ways of believing in relation to the learning experiences developed.

I'm not suggesting you will all act in the same way with students, this is not the essence. But if you all subscribe to similar ideas and beliefs in handling student learning you will have consistency in the new environment for student learning which will enhance the student's ability to get the most out of the situation.

There are four questions one might ask oneself about each learning experience selected which would provide a screen against which to determine its appropriateness.

If we define a learning experience to mean 'an experience to be planned which provides the student an opportunity to learn something new' the following questions should be raised in relation to it: (a) What is the student supposed to learn? (b) Is he ready to learn this at this time? (c) How can we determine if he has learned? (d) What other experiences could the student have and learn the same thing?

Certain principles and propositions about learning which have been identified and validated may be related to these questions. Let's take a look at some of these.

In looking at the definition of a learning experience as one which provides the student an opportunity to learn, the instructor must deal with the fact that opportunity does not bring results in all cases. The student must be ready to learn and readiness for learning is in part personal and cannot always be controlled. There are individual differences to be recognized and planned for and even when this is one the opportunity may not be grasped. Motivation is both extrinsic and intrinsic and thus not always controllable.

This is a negative approach to each of these principles, a student viewpoint, suggesting that for some reason the student is unable to engage in the self activity which would allow for learning to take place. I am assuming here that the instructor's role of providing an experience for which the student is ready, taking into account individual differences, and extrinsic motivation have been fulfilled. If, however, the student doesn't learn for some reason, he should have a second opportunity to do so if the learning experience is really a significant part of his nursing knowledge and skills. How you will plan for this must be determined.

Many ideas may be related to the first question 'what is the student supposed to learn?' The learning experience must have been clearly identified, i. e. learning experiences must be related to the objectives they are to implement. If the objective is to identify the learning experience specifically it must be stated simply and to this end. It must include the content area in which the student is to function and the behavior desired. Ordinarily there will be more than one kind of experience that can be planned to help the student learn the behavior identified.

Learning experiences usually have multiple outcomes, not one defined outcome. We call these concomitant learnings. They can often be maximized by conscious planning. When we use a single experience for multiple outcomes, we allow for economy of learning for the student and economy of planning for the instructor. Keeping this in mind we may find we can re-order our experience and provide a better learning situation.

The second question 'can the student learn this at this time' relates first to readiness for learning. When we ask if this is within the potentiality of the learner, we must decide what will determine potentiality. It may be determined in part by assessing the content and nursing skills which have preceded this learning. Are they such that the student can now use them to add to his repertoire this new learning? For example, if an objective calls for providing support and reassurance to a patient, we would look to see what content and skills precede and accompany the learning experience, define our expected outcomes and thus determine whether they are possible at this time.

Since the learner must have an opportunity to practice the activity identified in the objectives, the experience must be available in sufficient quantity and the program must be flexible enough to have the student available when the experience is available.

While self activity is a significant principle in learning one needs to have a broad view of what contributes self activity. We know that people can learn not only by doing but equally well and sometimes better by other means such as sharing another's experience in post conference, a movie, a field trip. All need not have the same experience for students can learn just as meaningfully from vicarious exposure to another's experience.

Does the student learn best if you teach the whole concept first and then break it down into its component parts? Or do you teach the component parts and arrive thereby at the whole? This can be related to readiness for learning too. The student at any point in time may add many things to his background meaningfully if they are built carefully on that which has preceded to the extent he can tolerate or learn. I suspect then that while we should present new content and ideas in their entirety, the entirety must be simplified to the level of understanding of the student. Depth is built slowly on past meaningful experiences. Programmed texts build with this idea in mind. A whole concept may be presented initially in the title or introductory paragraph. Then small amounts of information are added one to the other to build a whole and understanding is reached only when the parts have been completed and learned.

Transfer of learning must be planned. If we wish to build on what the student knows by adding newness we must help the student to identify the old in the experience and then the new. In most instances this will happen much more readily with the instructor's help.

The satisfaction of the learner must be considered. Responses made in a situation which result in satisfaction are more apt to be made again. The learner must see outcomes which are significant to him. While a degree of frustration is stimulating, continued frustration is destructive. The student for this reason needs adequate and appropriate guidance and support in the learning which is taking place. I'm not speaking of dependency but an environment created by the instructor which is permissive enough to allow for learning that is satisfying and at the same time autocratic enough to assist the student develop his highest potential.

Learning takes place more effectively when the periods of learning are spaced rather than massed together. In nursing this has meant we have moved from 8 hour labs several days a week to 3, 4, and 5 hour labs 2 and 3 times a week. Students learn better. Our third question "how can we determine whether he has learned" indicated that a tool must be devised to assess learning. Tools for clinical evaluation should be as objective as possible and should be used by all instructors evaluating a particular behavior or skill. The tool would need to state the action the learner will need to engage in to indicate to you he can do what you want him to do.

When you really begin to ask yourself what other experiences you could plan to accomplish the same thing, or perhaps to accomplish it better, you will begin to utilize learning time more effectively. You will find you have more flexibility in the use of clinical resources. In identifying multi-learnings rather than single learnings in a situation, you will find, too, that you plan more carefully for transfer of learning as you come to have this broader point of view concerning experiences which may be utilized.

In summary, the essence of this topic is that one must select learning experiences carefully so they will accomplish the objectives identified. We must keep in mind the readiness of the student and the capabilities of the learner for the learning experience for no matter how sound a learning experience may be, it must be within the reach of the student in order for effective learning to take place and in order for the student to feel a sense of satisfaction in the learning. The learner needs satisfaction from his learning, he needs to be able to see some kind of outcome which has significance for him. Anxiety and a degree of frustration may have an early and intensifying effect upon the degree of learning but long delayed satisfaction is disrupting and defeating to the learner. In all of this the environment in which the student learns, an environment created in great part by the instructor, should provide the student freedom to learn at the same time he is aware of the realistic limitations which the hospital and health agency placed upon him. But he must feel free to try the new, to make errors, to rectify these errors and to try again; and in all of this, he must have the support, confidence and guidance of a competent instructor.

SELECTION AND USE OF COMMUNITY RESOURCES

In making a decision concerning its ability to support an associate degree nursing program a community junior college must take a close look at the needs of the program. Three of these needs are paramount: a prepared faculty, an adequate student body, and adequate clinical experience in patient care. Each of these needs must be satisfied if the program is to be sound educationally.

The critical shortage of prepared faculty in nursing education may be equalled in other teaching fields but I doubt if it is exceeded. Since we would all agree that a program will be as good as its faculty, there should be concrete evidence that prepared people are available to fill faculty positions. There should be evidence that a group of students able to carry college work and interested in entering the nursing field are present in the community. There should be evidence that the health facilities needed to provide the kind of learning opportunities students should have are available and their administration and staff is willing to participate with the program.

Although this program is characterized by its ability and willingness to utilize a variety of health agencies for student learning, there is not a specific list of health agencies that must be available in or near the community. However, the lack of or the size of certain basic facilities should give the college pause for thought. A general hospital (or hospitals) will need and perhaps there should be a facility (or facilities) with a minimum of 200 beds. It is important that the hospitals be adequately staffed and that good nursing care be given. There must be experience with mentally ill in or near the community. The health department may well be used for certain kinds of learning experiences as well as other public and private health agencies such as nursery schools, nursing homes, clinics, etc.

It is repeatedly said that one of the advantages of this program is that we moved out of the four walls of the hospital and into the community into many kinds of health agencies and we seek there a variety of clinical experiences which will provide suitable and interesting learning for students. We have suggested that many kinds of experiences may be used to accomplish the same objective. We have suggested, too, that vicarious learning is sound and meaningful and should be utilized. But these are techniques and the college should not make the mistake of understanding the need for adequate health facilities at a distance which is not prohibitive.

The question of what constitutes a prohibitive distance is difficult to answer and indeed it has no one answer. In urban areas faculties travel many miles across the city for clinical experience. In rural areas faculty may have to travel considerable distance also and students may have to do the same in order to reach needed experiences. The time to be spent in travel by both faculty and students if the needed facilities are not available in the immediate community (and I am using immediate to mean within a 20 to 25 mile radius) must be given consideration. When faculty and students travel a considerable distance each time clinical laboratory experience is sought, one must think in terms of the cost to the college, the faculty and the student in both time and money.

The college in other words must make a decision as to availability of needed clinical laboratory areas and the adequacy of those available. To do this a survey of health agencies should be made prior to initiation of a nursing program. Having established the fact that this area will present no unsolvable problem is a giant step in the college's determination of its readiness for this program.

As faculty are employed they will move to select in the health agencies available the clinical laboratory areas to be utilized for student learning.

One of the first tasks a new faculty will undertake is to survey again, for somewhat different reasons, these same health facilities. They will need to determine those to be used at the beginning of the program and those to be used as more advanced experience is sought. They must interpret the program to the staff in facilities selected for use and establish relationships with the staff which will enhance the implementation of the program clinically.

We were concerned for years with the need to separate nursing education from nursing service. The associate degree program has accomplished this. The instructor and the students in no way are part of the hospital of health agency. However, the instructor will be functioning in these health agencies with students and it is incombent on her to create there a warm, receptive educative environment in which student learning will be nourished. Just how do you do this? It is a public relations task, primarily; a building and maintaining of productive working relationships which is never finished and forever necessary.

If the health agencies with which you are working have had no previous experience with the associate degree program the educational aspect of your task will take considerable time prior to the opening of the program. The staff of the health agency needs to have some basic understanding of the associate degree program. (I did not say acceptance.) There are a variety of ways in which they can be informed, i.e. films, conferences, visits by staff to college, etc. It will take many meetings of many kinds with the staff to interpret the program if it is new to them.

I would suggest to new faculty that you need not be too concerned if acceptance of the program is not immediately forthcoming. This is a different pattern of education and to many registered nurses a different world. They will not be accustomed to many things you do and the way in which you use the clinical laboratory may seem to them the greatest change of all. They will come to accept it only as time helps them to adjust to the changes which are taking place.

The staff will want to know what you expect of them. Some may have had previous experience with diploma education. They may be accustomed to taking responsibility for student learning. In the associate degree program where the responsibility for teaching students in the clinical area lies with the faculty this must be interpreted. They need to understand the role of the instructor with students, and the ways in which they can assist her in implementing her role. Staff often wish to be helpful and will be to the extent they understand how the instructor would like them to work with her and with students.

It is important that a plan be developed with the administration and staff of each health agency describing when the agency will be used and the method by which clinical experience will be planned with administration and with the staff of the units to be utilized. This is not to be construed to be a rotation plan as some of us know this term. It is important, however, that the clinical areas know when you are going to be there and for how long. They need to know this several weeks ahead of time if possible so they may plan both with you and around you. It is important, too, that the experiences for students in each health agency be well defined so you and the health agency and the student will know what is to be done when students are there.

We have followed a rather well defined method in working with the health agencies in our community. When a health agency is selected to be used those instructors who are to be involved with the agency meet at the beginning of each term or semester with the director of nursing services. They discuss the spectrum of experiences they will be seeking during that semester within that particular health facility. This is especially true if the health facility is used by another program in addition to your own. You need not have each laboratory period planned but you will need to know the areas of the hospital or health agency you will use and when.

More and more associate degree programs are finding themselves involved with other health occupation programs in the community in the utilization of clinical facilities. It may be necesaary for your faculty to meet with the faculty from this other program or programs to work out plans for mutual use of a health facility. This can be done to the benefit of both if there is prior planning. I think it wise if the associate degree program assume the initiative, contact other programs and establish a method of getting together periodically to plan for use of mutually shared clinical agencies.

Following the initial meeting with the director of nursing service our instructors meet with the head nurses with whom they will be working during the semester and explain to them, generally, the kinds of experiences and the time span in which they will be utilizing their area, Particularly at the beginning of a program the plan the instructor intends to use in selecting experiences (student assignments) should be discussed with the head nurses and staff involved. In many programs faculty plan with the head nurse the day prior to the clinical experience. At a pre-arranged time they select the experiences (assignments) for the next day. I think this has certain advantages. It makes it possible for students to have their clinical assignments prior to the time they come to the health agency and to do certain kinds of directed work in relation to them.

The factor to be considered here is the amount of time it will take to obtain the assignments ahead of time. I am sure in New York City where faculty have to travel 10, 15 and 20 miles or more to a clinical area by subway, they may not do this on the day prior to student experience. They either work out a system whereby they discuss this matter by phone with the head nurse or they get to the clinical area prior to the student's arrival and select needed experiences at that time.

In the beginning years at Manatee we met with staff on units being utilized at least one time during each semester and then with the head nurses and the director of nursing service at the end of each semester. In these meetings we discussed very freely problems which arose in implementation of our program. We met, in addition, at any time particular problems arose to be solved. In providing for these frequent contacts with staff we have laid the groundwork for productive working relationships with them.

One or two cautions in regard to the use of multiple health agencies. I think it is fine if you have more than one hospital available for use. In fact I think it is almost a requisite. If experiences can be planned for students in more than one hospital facility throughout both years of the program, you have a built-in mechanism for developing flexibility. If you teach facts and principles about patient care and then hold the student responsible to apply these facts and principles in the clinical situation rather than teaching that which is done in a particular clinical situation, you find students moving from one area to another with little difficulty and adjusting much more readily to the new situation.

At the same time I think it important that the instructor be asked to make changes from one clinical area and facility to another no more often than is truly desirable and productive. The instructor must be knowledgeable about the clinical area or health agency into which she takes students. Therefore, the degree to which she moves around within an agency and between different agencies should be evaluated. I'm not suggesting she should not move into different clinical areas or agencies but I think there may be an optimum number about which she can be knowledgeable and into which she can move and function.

effectively.

Instructors in associate degree programs need to be flexible. They will teach in areas other than their area of special preparation. The optimum number of areas in which they can be effective will vary from one person to another. But it must be given consideration for each instructor so she may operate at her own highest potential.

The utilization of clinical laboratory time itself will depend on your objectives. The experiences planned in health agencies should be those where patient care and patient contact are needed. The program should be flexible enough to move freely from the classroom into the laboratory and back to the classroom according to that which is being taught. Clinical laboratory experience in other words should be used as it is needed. You may take students out of an agency for a campus lab if you wish since you are under no commitment for services rendered. But I hasten to say this must be planned with the clinical unit in time not to disrupt their activities. But certainly it may be done. Always, of course, we must hold before us the need to make the best possible use of laboratory time. Therefore, the flexibility described does not imply that we should be loosely organized or disorganized in the use of time. There is no 'extra' lab time in the associate degree program. If you are not already aware you will come to know that one of the most important things you can do is to use every bit of it effectively.

There is considerable evidence at this time that clinical laboratory periods will be much more productive if they are shorter in length and spaced within the week. Most programs have two or three laboratory periods a week and many of the laboratory periods are 3 or 4 hours in length with a maximum of 6 hours. In many programs the number of laboratories a week are increased in the second year but the increase is not too great. I think the average in clinical laboratory in the program represented here is 8 to 10 hours a week throughout the first year and 12 to 15 hours a week throughout the second. Most programs plan 2 to 3 labs per week.

Clinical lab carries college credit. It must be a planned, meaningful time to students. To assure such calls for definition of the learning that is to take place and communication of these goals to the student. Nursing is fortunate in the kind of 'real' experiences it can offer students. These experiences serve many purposes. The student has the oppurtunity to learn by actually doing things himself in contrast to talking about them, watching others do them, or listening to others talk about them. It offers him the opportunity to apply theory and practice and the opportunity to develop needed skills. He is provided the opportunity to work alone and/or in small groups towards predetermined goals, and the opportunity to extend insight or knowledge of skill learned in one situation to new situations. It provides the instructor an opportunity to teach in the patient situation certain aspects of patient care not as well taught apart from the clinical area. It offers the instructor the opportunity to observe and guide the student's progress and to evaluate the student's growth.

A question that arises as surely as two instructors begin discussing student learning is that of student-instructor ratio. In order to discuss this problem with any degree of rationality the air must be cleared as to what we mean by the words. Whenever an instructor deals with students in a clinical situation, she works with them in a series of ratios. In some instances she will be working with each of them in a 1 to 1 ratio because she will be in a 1 to 'something' ratio according to the total number of students she is responsible for at a given time in a clinical area. Just what this 'something' is and should be is the question being raised so often today. To clear the air on that issue we should all agree, too, that the desirable student-instructor ratio for any one learning experience will depend upon the learning experience itself.

However, I think we might also say that the extent to which an instructor can extend herself to a group of students and be effective in providing each student essential guidance during learning will depend to some extent on the degree to which the learning experience is precisely defined. If experiences are well identified and if the student understands where and how she may find the instructor to get help needed, I believe an instructor may extend herself to many more students that we have conceived possible in the past.

If you add to this thinking the concept of multiple assignment in which several students work together to give care to one patient, it is possible to extend one instructor to an even larger group of students and still provide meaningful learning for all of them and assure patient safety. There are programs in which instructors work with students in a ratio of one instructor to 15 students, 20 students, 22 students, while the students are participating in many kinds of learning activities. We have only begun to seek answers in this area and we need to have an open mind about what is happening.

Certainly the kind of experience the student is having will be a determining factor in the student-instructor ratio. However, with specific definition of experiences, the use of newer techniques in teaching students in the clinical area and with students working with each other and with patients in different ways one of our problems, a critical shortage of prepared faculty, can be solved in part. For if it is possible to extend prepared faculty to larger groups of students we then increase enrollment in our programs without the necessity of increasing the size of our faculties.

The restrictions instructors impose in terms of the number of students they feel capable of handling often have to do with the instructor's desire to assure patient safety. This is a reality. However, I think that one of Dr. Montag's remarks is pertinent here. She says that unless the student can be left alone to do simple things without endangering the patient she has no business in the nursing profession. Many of us need to re-think our biases about student-instructor ratios. We need to keep abreast of new ideas and techniques in clinical tbeaching. Some of the innovations are creative and effective and they have been designed for use in the associate degree program.

Evaluation of the student's progress is a very important part of student experience. Evaluation should be a planned experience in the clinical area just as you plan any type of examination with the student. It should be done in a structured way so the student knows what is to be evaluated and how. It' is the how which has presented us many problems and we will discuss new ideas and new tools tomorrow.

If we believe that evaluation should be done in a structured way and done periodically then most of the time the student spends in the clinical area working with patients is learning time. To learn the student must have the opportunity to make mistakes, to correct these mistakes and to move on. This presents certain problems in patient safety but the opportunity to be wrong and to learn thereby is an inherent part of the learning process. It is the instructor's role to assist students in their learning. It is the instructor's role to create an environment in which thesstudent feels free to learn that which he needs to know and derives satisfaction from so doing.

IN SUMMARY:

We have taken off our blinders about the use of health agencies. We have moved out of the four walls of the hospital and we are many agencies for a variety of experiences. This has been a tremendous change. It has both advantages and disadvantages. We are responsible to nursing sefvice only for the care of those patients and experiences we select for student learning. To maximize the facility for student learning it is imperative that the faculty develop a working relationship with the staff which will be productive.

Some of the approaches being used successfully in planning clinical laboratory experience combine shorter laboratory periods with well defined learning experiences, and well defined evaluation techniques. Periods of evaluation are set aside for the clinical learning area just as they are for the classroom situation. The remainder of the student's time in patient contact is for learning. New teaching methods designed for clinical teaching in the associate degree program have made a real contribution to nursing education.

I believe that most often the degree to which faculty will be effective in implementing the clinical laboratory portion of their program is the degree to which they are effective in working with the staff of the agencies selected for use. I can say honestly we have had little difficulty in the use of clinical agencies in our area. I say this looking back over a five year period in which we have had problems in the implementation of planned experiences and in which our clinical agencies were not particularly interested in our program as we were developing it. But at the end of five years we can say we have developed productive working relationships. I feel this is because our faculty has had the general philosophy that it was our responsibility to work effectively with staff, to solve the problems that arose at the time they arose and not to let them influence our future dealings with the situation, clinical unit or individual.

In this program we have the opportunity to approach the planning of clinical laboratory experience in a totally new and unfettered way. Freedom is often hard to cope with, but if we are to use this new freedom to best advantage for the student we must know what we are doing, what we are looking for, and how we want the clinical agency to help us. Given this kind of direction they will most often be cooperative partners in the student learning process.

PRE AND POST CONFERENCES

One of the major characteristics of the associate degree programs is the comparatively limited clinical experience of the student. This reduction in "doing" time need not and should not reduce the patient oriented learning. The teaching element that makes each clinical experience really meaningful for the learner is the pre and post conferences. Well planned and guided pre and post conferences make the patient contact time of the student truly a learning experience rather than just a "doing" experience.

Dr. Montag has stated that each laboratory experience consists of three parts; the assignment and briefing, the planning and doing, and the discussion and evaluation. These parts of the clinical exposure of the student can become useless if the pre and post sessions are no more than giving instructions and receiving a report. As a teaching method, they become vital and productive when seen as the components of the problem-solving process; identify the problem, collect data and information, plan the solution, execute the plan, evaluate the results.

An effective pre conference must fulfill the first element of problem solving--identify the problem. Each laboratory objective can, from the student's standpoint, be translated into the who, when, what, where, why and how that are the basis of all problems for learning. This is the process of helping the student set her learning focus for the experience. Without this, the clinical experience time is ineffective. The second and third steps in problem solving--gathering data and information and formulating a plan--begin in pre conference with assignment and discussion of patients and their needs. At this point, the student should be assisted in relating the knowledge she has to the patient situation. The gap is bridged between knowledge and its use in patient care. If the student is to learn by the experience of others as well as her own, then she must be given the direction and opportunity to participate in the group from which she learns. The level of the student group as well as the laboratory objective determine to what degree information-getting and planning are done with the group in pre conference or done independently.

The fourth phase of problem solving--executing the plan or the actual "doing" experience--should find the student well prepared to proceed in at least an intellectually organized manner. This experience time should be adequate for the student to carry out her original plan. If it is not, evaluation of the plan itself will be difficult.

The final step in problem solving, evaluation, is the area where the most learning takes place and without it the student is denied the opportunity to know if she has really reached her objectives. Post conference is when the experience gels, where acceptable values are set. One of the greatest advantages to a free discussion in post conference is the opportunity for the student to discuss her feelings about and responses to the patient-nurse situation. This expression on the part of the student helps the student to better understand her reactions, helps put her problems in their proper perspective, and through sharing of like situations helps the whole group in their adjustments. Regardless whether the post conference is structured or informal, it should never be rigid or inhibited if it is to be effective. While the pre conference is focused on the patient the post conference should be focused on the student.

The role the instructor plays in pre and post conference will determine the difference between an effective and an ineffective learning experience. Other than making the actual assignments, the instructor in this situation is not primarily a giver of information but rather a coordinator, possibly an expert when a judgment needs confirmation, an instigator of discussion or, in some rare and rewarding situations, a passive by-stander.

Webster defines a conference as the "act of consulting together, especially on important and serious matters." The ideal post conference emphasizes the "together". A free exchange among students helps to create the essential confidence in their own knowledge that is necessary for intellectual growth.

Philosophically, an experience is described as all that is perceived, understood, and remembered. It is the pre and post conference that makes it possible to understand and remember what is perceived.

ASSIGNMENT PATTERNS

Purpose: To enable the student to accomplish her learning objectives for the laboratory experience and to allow the instructor to move comfortably within her own limitations and those of the clinical environment.

Types:

1. Individual

Traditional. This pattern assigns an individual student responsibility for the patient and all aspects of his nursing situation depending on the student's level of ability. The patient is chosen according to his ability to provide the necessary practice in nursing skills and later his ability to provide an appropriate diagnosis. The student's emphasis is on doing. The instructor hopes for a clinical census which will provide the same nursing practices or diagnoses for all the students in her group. Individually the students have repetition of nursing skills, more responsibility for patient care and a variety of patients. Non-doing skills are not emphasized since the student has little time during the lab to do anything but physical care.

2. Functional

Also traditional. The student is assigned not to a patient but to a task.

3. Individual - Functional

Part of the students are assigned to patient care while others do various treatments available on the clinical unit. In this type of pattern the instructor usually is with the students giving treatments and those doing patient care get along the best way they know how. This pattern, like the first two, emphasizes the "doing" aspects of nursing.

4. Long-Term Patient Care

The student with the instructor chooses a patient whom the student will study and give care to for the duration of the unit of study.

5. Multiple or Group

In this pattern a group of students is given responsibility for the care of a single patient. The number of students in the group varies from 3-5 depending on the roles defined by the instructor. It is a division of all aspects of the nursing situation with a sharing of responsibility for planning and of knowledge gained during the experience. Each student assumes a specific role. During successive labs the student remains in the same group but assumes a different role. Maura Carroll in her talk "The Concept of the Multiple Assignment as a Teaching Aid" has identified these roles.

(a) The doing role:

This student gives direct patient care and is concerned about physical comfort, medical therapy, and the needs of the patient.

(b) The observational role:

This student observes the activity of the student in the doing role, the behavior of the patient, and the environmental atmosphere.

(c) The information gatherer:

This student is engaged in non-direct activities outside the patient environment. He gathers pertinent material about the patient, his treatment, and his diagnosis by talking to allied personnel, reading the chart, doing library research, and visiting other hospital departments. He may also accompany the doctor on rounds to get a broader view of the nursing problem which his patient has.

By pooling their information and by sharing the work the students in these roles have a relatively complete picture of the patient in a short period of time.

Because all students are not engaged in a "doing" activity the instructor can teach in a larger ratio. There is less need for patients with specific diagnoses since the student deals in broad nursing problems. Non-doing roles of nursing are emphasized as much as the doing roles. The student's opportunity for repetitive practice in nursing skills is decreased. The instructor must understand the experiences planned for each student throughout the semester and be sure each student has equal opportunity to participate in the variety of learning experiences created by the multiple assignment pattern.

Factors Whic Can Influence Selection of Assignment Patterns:

1. The instructor's philosophy
2. The learning objectives for the lab.
3. The level of the student
4. The student-instructor ratio
5. The patient census

Sample Laboratory Guide - Individual Assignment Pattern

Laboratory Experience: September 1 and 3, 1965

Focus: Giving hygienic care to a patient.

Objectives: 1. To learn to give hygienic care to a patient.
2. To learn to make an occupied bed.
3. To learn to describe the physical appearance of the patient.

Pre-Conference: September 1: Giving hygienic care
September 3: The Patient's need for privacy

Learning Experience:

Give hygienic care

Write a description of the physical appearance of the patient.

Post-Conference: September 1: Problems in giving hygienic care
September 3: Variations in hygienic care

TESTING AND EVALUATION

INTRODUCTION

Approaches to evaluation cover a wide variety of methods and techniques only one of which is testing.

Evaluation is generally used in more comprehensive term.

A faculty has two basic judgments to make in this area:

1. What abilities their graduates should have upon graduation. (includes knowledge, skills and attitudes)
2. Whether or not their students have attained these abilities to a satisfactory level.

Evaluation in the broad sense is involved in both of these questions. But today we will focus primarily on the second question:

> How can we determine if students are attaining the desired level of achievement?

PURPOSE OF EDUCATION PROGRAM

The purpose of any educational program is to produce changes in behavior of students that would not otherwise occur or to cause these changes to occur more rapidly than they would ordinarily.

FUNCTIONS OF EDUCATIONAL EVALUATION

Whe evaluation process is correctly placed in the educational scheme it has definite functions. The more important of these functions are:

1. To discover the individual student's achievement of course and curriculum objectives i. e. to discover the kinds and degree of changes that have taken place toward achieving the goals of the program.

FUNCTIONS OF EDUCATIONAL EVALUATION (Continued)

2. To judge if changes were adequate i. e. students attained desired level of achievement.
3. To place the students in their relative order of achievement regarding grading.
4. To provide an objective (relatively) basis for counseling of students.
    a. Student motivation.
    b. Diagnostic and remedial approaches.
    c. Determine strength and weaknesses.
5. To provide the instructor with a measure of teaching effectiveness (utilized in course and curriculum modification and planning)

STEPS IN THE EVALUATION PROCESS

A. Defining objectives.

B. Selecting the construction evaluation devices.

C. Applying the device to students.

D. Scoring and/or summarizing the results

E. Reporting results back to students and others.

F. Analyzing the results in terms of what they mean for instruction and for refining the objectives; improvement of teaching and learning situations and in growth and development of students.

Formal test and measurement procedures must be supplemented by cruder procedures e.g. informal observation; anecdotal records, etc. if picture is to be complete.

Must always interpret results--it is only an interpretation.

TYPES OF EVALUATION DEVICES

A. Paper and pencil tests -- involving defined task and testing period.

1. Objective.

2. Essay.

Advantage: permanent record or product available for scoring and/or analysis.

B. Cognitive domain.

C. Oral Tests.

D. Performance evaluation involves:

Systematic Observational Methods in which behavior is observed in:

1. Naturally occurring situations.

2. Structured psituations -- structured to bring about certain behaviors.

3. Retrospective observation -- e.g. rating scales present memory and evaluation for past reactions.

E. Product evaluation -- e.g. nursing care plan, etc.

F. Self reports -- responsibility of faculty to certify competence, therefore self evaluation not appropriate here, can be used to explore interests, attitudes, feeling tones and to help students learn to judge their own performance.

(Each of these evaluation devices were discussed briefly with some illustrated examples presented by the workshop faculty.)

SOME NEWER APPROACHES TO TEACHING

For some years now educators have watched the approach of a serious educational dilemma: the student population is rapidly increasing each year; and the teacher population has remained numerically stable or slightly diminished. The question then is how can we reconcile these two facts and still maintain satisfactory educational standards?

From every corner of the country we hear the question "How can we get more teachers?" The problem seems particularly acute in nursing education and it is my impression that the need for qualified teachers in associate degree nursing programs is rapidly approaching the desperate stage.

It seems to me that there are at least two major approaches to the question: First, more effective utilization of teachers; this involves development of new teaching methods and creative modifications of current teaching methods and curriculum patterns.

Second, more effective utilization of technological aids to teaching -- those now in existence and those in development.

Other approaches to the problem such as acceleration and/or improvement of teacher preparation programs, are indicated and should prove fruitful, however, I would like to focus my remarks this morning on the first two areas mentioned; better utilization of teachers; and better utilization of new technologies. There is obviously some overlapping of the two and actually the second is a part of the first but for discussion purposes let's separate them out.

UTILIZATION OF TEACHERS

For some years now those of us in nursing education have been saddled with completely unfounded, unsupported, magically contrived formulas on student-teacher ratios. Our literature glibly talks about 1:4, 1:6 ratios as almost unquestioned articles of faith. Yet is is impossible to find either research data or educational principles to support this idea. It has been shown that it is unrealistic to hope to achieve these ratios and perhaps even educationally undesirable. Certainly it is educationally untenable purely in terms of economics if not practicality. The Maura Carroll study at the University of California (Los Angeles) showed that one instructor can successfully teach twenty students in a laboratory section. Rockland Community College has demonstrated similar effectiveness with 18-20 or even more students in a laboratory setting. Two of the major obstacles to the expansion of nursing education are lack of qualified faculty and limited clinical facilities. As Miss DeChow points out in her paper in SREB report of Fourth Conference of Council of Collegiate Education for Nursing (p. 23) this method has several advantages.

1. The prepared instructor may be extended to a larger group of students.
2. Clinical resources may be used to accommodate larger groups of students.
3. The student has as much emphasis on the "non-doing" activities of learning as on the "doing" activities.
4. The student learns to work with his peers in a group situation.

At the same time the student learns the same amount of content and develops the same competencies in nursing as were learned under methods of assignment. So this whole area of student-faculty ratio is one in which there needs to be a great deal of study and adherence to unfounded dicta from the past. Certain kinds of learning situations may even lend themselves to unheard of (in nursing) ratios of 1:50 or even 1:100! It would seem to me from the simple standpoint of logic that the student-faculty ratio would vary considerably in regarding the type of content being taught, the specific immediate objectives of each particular learning experience, the level of readiness of students and any number of other factors or variables in a given learning situation. So one standard formula for all occasions is simply too pat! It is educationally naive.

We must, I think, make a concentrated effort to design more new creative approaches such as this "multiple assignment" method to explore.

Another area of investigation might be the routine individual conference. I wonder sometimes if we haven't adapted this almost as an educational fad. What is it exactly that can be accomplished in an individual conference that can't be accomplished in a small group session? I recognize there are specific instances in which an individual conference is indicated. But I do wonder if we haven't tended to overuse them. Particularly when they are routinely scheduled once or twice a week. I think we must be very selective--should be sure objectives cannot be met any other way--when we use individual conferences because this is a drastic drain on faculty time. Further study in the area of what precisely is it that can only be done in an individual conference would seem to me to be quite fruitful. I have a hunch that we might find that some of the things we have thought of as being "individual conference content" might be as effectively or even more effectively done in small group sessions.

Another way in which the individual faculty member can be extended to teach more students is by the use of closed-circuit television.

The ability to make the most competent teacher available to many students simultaneously is possible with a closed-circuit television. There are any number of advantages to the discriminating use of this new technology.

Recent improvements in closed-circuit television have brought the cost of purchase and installation of closed-circuit TV equipment within reach of the average nursing education budget. The addition of a two-way communication system is relatively simple. This combined system could then be used in almost limitless variations with TV recording equipment, etc. for teaching purposes. The advantages in regard to the teaching-learning process are obvious. For example, immediate feedback, record for analysis, immediate correction of performance, etc.

UTILIZATION OF TECHNOLOGICAL AIDS TO TEACHING

We have heard a great deal of discussion in recent years about devices that can be employed in the teaching process. These devices are of several kinds:

(1) Devices for vicarious experiences -- i.e., present material of a kind that would not ordinarily be available to student. e.g., a movie of nursing care situation in Belgium

(2) Model devices -- has function of helping student grasp the underlying structure of a phenomenon. e.g., laboratory equipment or demonstration, model of molecule, model of respiratory system, programmed instruction. Purpose -- clarity and concrete embodiment of a concept.

(3) Automatizing devices -- teaching machines - while such devices vary widely they do have certain features in common. The machine presents a carefully programmed order of problems or exercises to the student, one step at a time. The student responds selectively in one form or another to the alternatives presented in a problem or exercise. The machine then responds immediately, indicating whether the response was or was not correct. If a correct response is made, the machine moves on to the next problem. The progression in difficulty from problem to problem is usually quite gradual in order to provide a series of successful experiences.

What one teaches and how one teaches it with the aid of such devices depends upon the skill and wisdom that goes into the construction of a program of problems.

Perhaps the technically most interesting features of such automatic devices are that they can take some of the load of teaching off the teacher's shoulders and, perhaps more important, that the machine can provide immediate correction or feedback to the student while he is in the act of learning. It is still far too early to evaluate the eventual use of such devices, and it is highly unfortunate that there have been such exaggerated claism made by both proponents and opponents. Clearly, the machine is not going to replace the teacher - indeed, it may create a demand for more and better teachers if the more onerous part of teaching can be relegated to automatic devices. Nor does it seem likely that machines will have the effect of dehumanizing learning any more than books dehumanize learning.

In sum, then, there exist devices to aid the teacher in extending the student's range of experience, in helping him to understand the underlying structure of the material he is learning, and in dramatizing the significance of what he is learning. There are also devices now being developed that can take some of the load of teaching from the teacher's shoulders. How these aids and devices should be used in concert as a system of aids is the interesting problem.

PROGRAMMED INSTRUCTION

The initial testing of subject matter material in nursing has pointed up the need to prepare nurse instructors in the proper use of programmed instruction. Further study of the way in which teaching machines fit into the total educational program is indicated, as well as additional work on identifying that portion of the nursing curriculum that will lend itself to programming. The success of the initial experimentation in this area suggests the worthwhileness of such efforts.

The devices themselves cannot dictate their purpose. Unbridled enthusiasm for audio-visual aids or for teaching machines as panaceas overlooks the paramount importance of what one is trying to accomplish. The objectives of a curriculum and the balanced means for attaining it should be the guide.

Yet the fundamental fact remains that the teachers constitute the principal aid in the teaching-learning process. It is clearly evident that communicating knowledge depends in enormous measure upon one's mastery of the knowledge to be communicated. The teacher is not only a communicator but a model. Whitehead once remarked that education should involve exposure to greatness. To communicate knowledge and to provide a model of competence the teacher must be free to teach and to learn. We have used volunteers for years in hospitals, why not use them in schools for routine quizzes, preparing laboratory materials, etc. The effect would be to free the teachers for teaching and study. If the teacher is also learning, teaching takes on new vitality and quality.

In summary, then, the teacher's task as communicator, model, and identification figure can be supported by a wise use of a variety of devices that expand experience, clarify it, and give it personal significance. There need be no conflict between the teacher and the aids to teaching. There will be no conflict if the development of aids takes into account the aims and the requirements of teaching. The intelligent use of that money and of other resources now available will depend upon how well we are able to integrate the technique and wisdom of the skillful teacher.

We must make a deliberate and concerted effort to study ways to adapt electronics and technology to answering some of the almost insurmountable problems of nursing education in the future. The American business and military complex long ago learned to apply technology to solving their educational problems. Education, in the main, has failed to utilize this vast resource potential.

In an effort to avoid misinterpretation and to clarify my position let me enter one caveat -- that excellence in teaching will always, in my estimation, be primarily a function of the student-teacher relationship and expertness of the teacher's overall performance regardless of the level of technological expertise attained. But in the attainment of this level of technological expertise, which I submit is highly desirable as well as necessary, we are limited only by the extent of our imagination and creativity.

CONTINUED CURRICULUM DEVELOPMENT

I am going to talk about continued curriculum development in three rather separate ways. The ingredients are probably many more but given these three most faculty groups will move to attain and maintain a strong and vigorous program. The first ingredient is a prepared faculty.

What constitutes adequate academic preparation for the instructor and chairman in an associate degree nursing program? Since the program is an integral part of the college the requirements for appointment to the faculty should be the same for the nursing department as for other departments. This would mean the faculty would have academic preparation in keeping with that of other faculty in the college. Preferably this person would hold a master's degree with a major in nursing and we would assume with this level preparation competency in nursing practice and preparation for teaching in nursing.

Because new approaches are being used in organization of content and selection of learning experiences, this faculty member will guide student learning in several clinical areas rather than having the opportunity to work in one. Thus this instructor needs to be prepared to teach in one nursing area and willing to teach in others. The instructor needs adequate preparation in principles and methods of teaching and in curriculum organization and development. This faculty member needs to be flexible and creative in dealing with curriculum matters, facile with methods of teaching, and above all, willing to try new approaches and techniques. Part of this may be learned with graduate study but the quality which seems to be most important for success and enjoyment of this level of education, that of flexibility and the desire to try the new is not necessarily learned at this level of education if it is not possessed in part when one embarks upon it.

One needs also to believe in the distinctive purpose of junior college education and to know some of its problems. The principle role of the junior college teacher is to teach and not to do research. The junior college works with a heterogeneous group of students whose age range and distribution of talents are much more varied than we have been accustomed to in diploma or baccalaureate education. The junior college has multi-purposed programs including the technical self contained category into which nursing fits well.

The junior college is a fascinating entity in higher education today. This faculty member who has not done so needs to take courses designed to inform about this educational institution. In addition, it would be desirable for this faculty member to have experience in the junior college in the functional role to be assumed in nursing while in graduate study.

Those who function in administration of these programs need much the same preparation and the same qualities as the faculty member. In these programs department heads customarily teach in addition to their administrative duties, thus they need preparation for clinical functioning much like the rest of the faculty. Knowledge of principles and methods of teaching and knowledge of curriculum development are important for the administrator along with principles of administration. It is obvious this person must be flexible, too, and have the ability to work with others to get the job done. If the program is to be developed as a whole, not as a group of separate nursing courses, the faculty must devote themselves to this task as a group and it is the role of the director or chairman to help them do so. To accomplish this calls for talent ent in working effectively as a leader. These are suggested qualities and the suggested academic preparation needed by faculty in these programs.

At the present time we are in a period of increasing demand for instructors and directors and we are faced with a critical shortage in supply. We are opening programs with faculty who do not have adequate preparation or experiential background for the positions they assume. Because this be true, I think certain realistic plans should form the basis for dealing with those who are not as well prepared as they would desire until we are able to bridge the gap between faculty needs and faculty preparation.

The faculty member who is employed without adequate background must be given preparation through in-service education so she may be as effective as possible in her job. We are experiencing in this workshop one example of what may be done in this area. Purdue University conducted a similar workshop last summer and, as you know, four such workshops are being conducted this year. Workshops and conferences in associate degree nursing education have been and will be planned by the National League for Nursing, by universities and junior colleges, by regional groups such as the Southern Regional Education Board and the Western Interstate Commission on Higher Education in Nursing, by some State Boards of Nursing.

Efforts along this line are greatly needed and must be continued. In fact we need ingenuity as to the form they should take. However, these are interim measures for in the final analysis if nursing education is to take its rightful place in the junior college, faculty must have educational background in keeping with the positions they hold. This alerts each of us to the need for preparedness for the positions we hold. The regional accrediting body for the southern area is the Southern Association of Colleges and Schools. They have recently adopted a new requirement for department heads in the junior colleges in which thirty semester hours beyond the master's degree is spelled out as desirable for the person holding this position. Each faculty member has the responsibility of evaluating his own preparation and potentiality in terms of the needs of the program in which he is functioning and the qualifications for the position he assumes and to continue efforts throughout his academic career to attain and maintain these qualifications. As you can see these will change.

First then, we need to be prepared faculty members if we are to make our maximum contribution to curriculum development. As faculty members our responsibility in this area is equally important as our teaching responsibilities.

The second ingredient is the group process through which such may be accomplished. Continued curriculum development is a task which colleges and universities feel is important and legitimate for a college and university must continually evaluate its goals and programs against the needs of the culture in which it operates.

Dr. Stephen Corry of Teacher's College has suggested there are five steps in curriculum revision: (1) disontent -- there must be some unhappiness with that which is being done. Someone has to be discontent with some part of the program. This can come about because a new faculty member joins the group or there is a new director or there are new facilities available for teaching or just about anything that would lead one to be somewhat less than pleased with that which is taking place. (2) Exploration or assessment -- you know that you are not pleased with what is going on. Your question is what can you do about it. (3) Planning-- you begin to devise means whereby you can do a better job than you have been doing. (4) Implementation -- in this period you try out whatever it is you have planned; and (5) Evaluation -- you assess the value of that which you have done and find, hopefully, that you are discontented again and process starts over. Curriculum change is a process or rather it involves a process and these are some of the steps through which you might move in carrying out evaluation and revision in your situation.

Having had a planning year in preparation for the nursing program at Manatee Junior College, we had a great deal of time to spend in curriculum development. It was during this year we learned how time consuming the process of curriculum development and change can be. We developed part of our program as individuals after such part was identified by the group as being necessary to the whole. The work then done by each individual was brought back to the group for review and revision. It was in these sessions that we learned how difficult it is to become a functioning effective group of people. In order to be effective together we had to learn to be mature and objective with one another. We had to learn that the suggestions for change in material presented by any one person were not personally oriented but were concerned with the problem under discussion. We had to learn as the presenting person that change suggested by the group, if it won the consent of the majority, would be implemented. We found many times that this was not comfortable.

That we had difficulty as we began the task of working together was evidenced by the fact we bought modeling clay and each person during the course of these discussions would make various kinds of figures or objects out of this clay to relieve tension which arose because the things we were learning to say to one another and the things we were doing to another's work were somewhat difficult to tolerate. I cannot remember how we moved to use modeling clay to relieve our frustrations, but it worked very well with our group providing us with an outlet we badly needed.

We learned to allow the leadership of the group to pass from one person to another as the opportunity and need arose, for no one in the group had the prerogative including the director to over-ride the decisions made by the majority in relation to curriculum matters. It was our understanding with each other that we would be allowed to express our feelings and concern about a particular problem, but regardless of how we felt about it, once the group made a decision it would be implemented.

To work together in this way calls for mature prepared people but it is a process, I believe, through which one also attains maturity. If, however, you would be first and foremost comfortable in your situation, if it is necessary for you to develop an outline which you can use for the next five years, if you feel you must have the prerogative to make decisions for your own area of teaching, then you will find it difficult to work in a group in which this type of process is seen as important to moving the program forward.

If a program is going to adopt a group process for curriculum work there are two important factors which must be dealt with. First, one must realize that a process such as this is time consuming. If this be democracy, democracy is a slow and tedious process and autocracy, indeed, is much more rapid. The second aspect of the problem is that this process must be planned for. If you really believe that the program should be planned by a group, then you must set aside time each week in your program in which faculty get together to accomplosh this goal. It's not enough to say this is what you want to do. You must provide time so it can be done.

But,finally, how you are going to do this in your groups will differ. There are many ways in which a group can work together to accomplish evaluation and revision of the program they are implementing. Whether you do it at all will depend philosophically on what you believe your responsibility to be to nursing education and your program. The associate degree program has offered us an interesting and challenging opportunity to develop something new and dynamic. With it has come many new ideas, concepts and approaches to teaching and to learning in nursing. I would hope we are only at the beginning of what will continue to be fruitful years in the development and continued development of the program.

I believe you have a responsibility as a fcaulty member to motivate the group with whom you work and to cooperate with the group with whom you work in bringing about change in your program, for each and every faculty member is a potential change agent. It is a responsibility you cannot avoid if you are to be truly effective and productive in your program.

For those of you who are chairmen or directors of nursing programs, you have the responsibility to motivate your faculty to change. You will offer quidance and leadership to each of them individually and to the group as a whole in bringing about this change. Yes, indeed, you have an obligation to insist that your faculty group consistently assess its progress in terms of its goals and make needed changes.

We are part of an educational movement which has had the tremendous advantage of much research and study. The philosophy of sharing with each other and in so doing growing and continuing to grow so we will never become the traditional program of tomorrow is an inherent part of associate degree nursing education. Your contribution is to plan for change in your program and to participate in change in your program. In so doing you will find the position you have a challenge, a delight, and as interesting and educational task as you will ever undertake.